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# THE ARCHITECT

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• AUGUST • 1915 •

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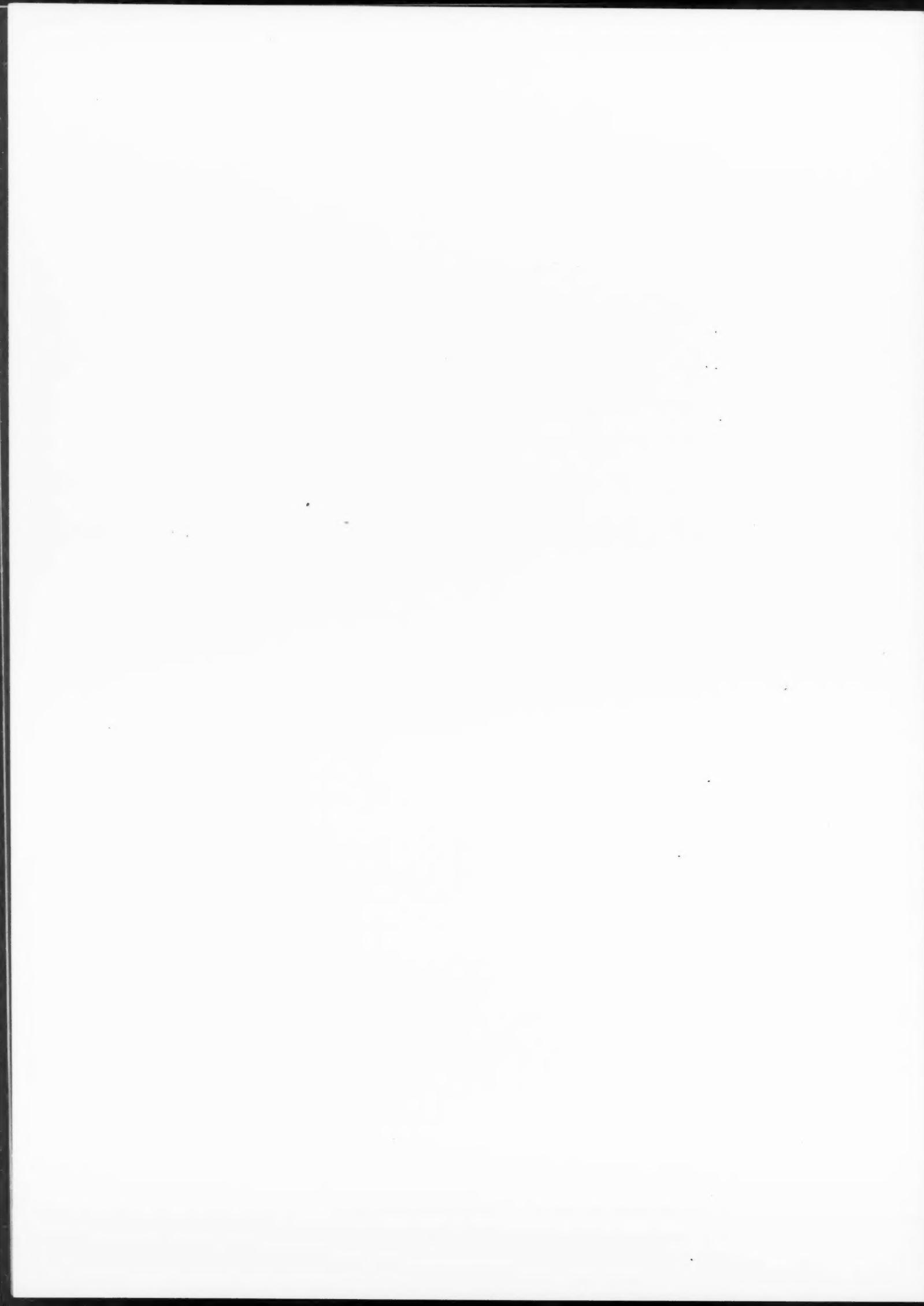
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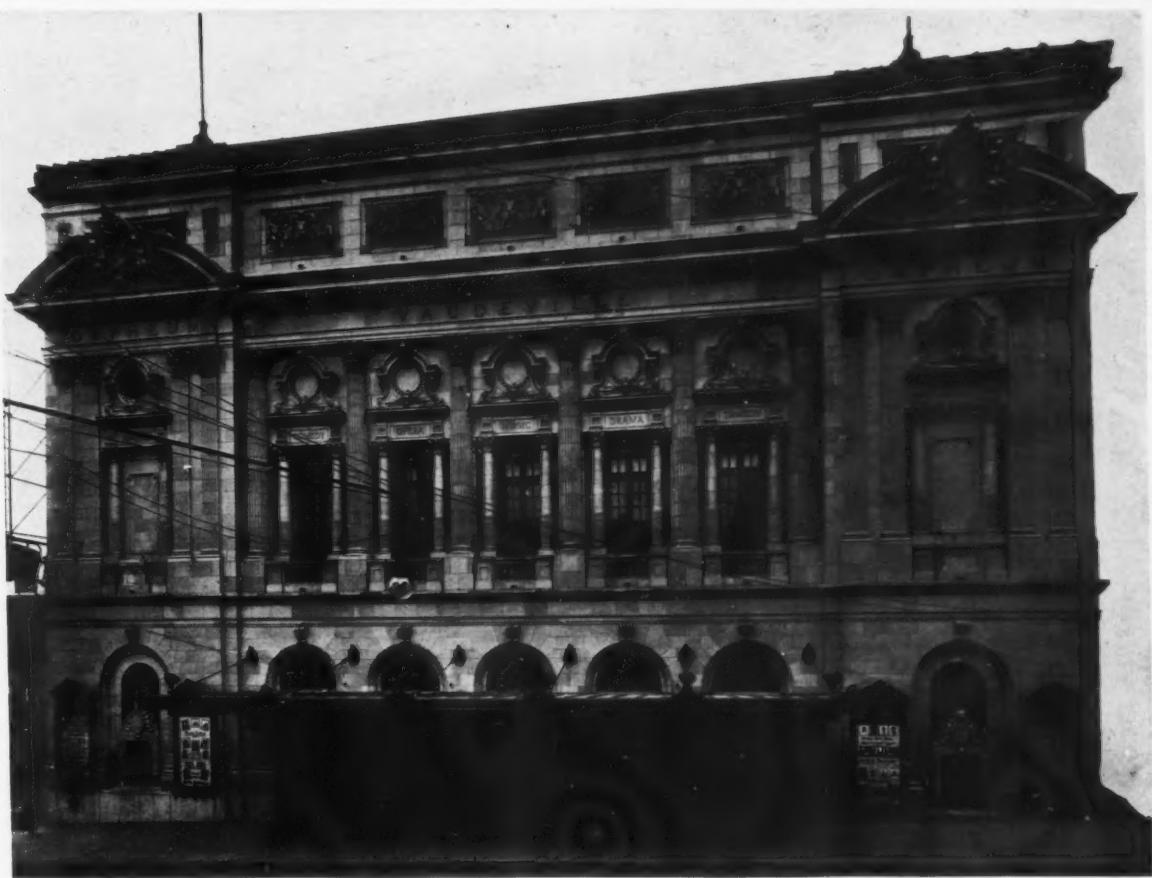
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## Editorial

### Chapter Officials Show Progression

We present in this issue an unusually attractive article entitled "Important Information for Your Client," published by and under the direction of the Iowa State Chapter, American Institute of Architects. This article has been mailed broadcast, showing a most worthy spirit of progression and co-operation on the part of the Iowa State Chapter officials. Not only is such an undertaking expensive, when promoted by a single chapter, but considerable time and individual effort must be expended by those in charge.

It is not necessary for the writer to here review the article in question, as we have reprinted it fully. Our only motive in mentioning the matter editorially is that we know this article and the information it contains to be so good that we believe every architect should have not only one copy, but many copies of the circular. They can be used to admirable advantage by the architect in mailing to persons interested in building, for the prime purpose of avoiding mistakes and friction, much of which can certainly be eliminated by a thorough perusal of the information at hand.

To this end and with the permission of Mr. Eugene H. Taylor, secretary of the Iowa State Chapter, we desire to advise our readers that copies of the circular can be obtained directly from the office of Mr. Taylor at Cedar Rapids, Iowa.

"We will be glad to furnish copies of it (the circular) to all asking for it. To be sure, the expense might be considerable, but we desire to be doing some good in some way," writes Mr. Taylor.

Needless to say, the secretary of the Iowa State Chapter is a man of broad vision as well as broadminded. In making the above statement he shows a spirit of co-operation and a desire to be of kindly assistance to fellow members of his profession, worthy of special mention. He further writes: "We are open to all criticisms and suggestions for its (the circular) improvements. There is so much that

might be included it is hard to know what is best to include, but it seems best to limit it to its present length and shape; still, it might be increased a bit perhaps if the right items can be fitted in, or some revamping and rearranging is found wise. Its present shape is the result of considerable study and suggestion. We will be grateful for the thoughts of the California confreres. It is for the education of the public (and stiffening up of the profession where such is, alas, often necessary), and it has been mailed to many citizens, to school boards, who are reported as calling for appropriations and bond issues; to church boards, building committees, etc., as information of prospective operations come to hand. A continual circulation of this or something like it would seem to be effective in time, even if not at first."

Writing in similar vein, William L. Steele, of Sioux City, president of the Iowa State Chapter, says: "The circular referred to is tentative and I hope represents a step in the right direction. I also hope that it will be improved upon, as no doubt it will if the other chapters take hold of the subject-matter."

President R. Clipston Sturgis of the American Institute of Architects has heartily commended this article. Mr. Sturgis also gave valuable aid in its preparation, or rather revision of the tentative form, a few of which were printed in March, and for which criticisms were asked.

It is only too true that "experience has shown that lack of information on the relations that should exist between the client and the architect is one of the most fruitful causes of trouble in building; "any increased knowledge that might operate to obviate much of this difficulty will undoubtedly be welcomed by the profession."

We desire to be among the first to congratulate the officials of the Iowa State Chapter, and especially Secretary Eugene H. Taylor, on their efforts, which promise such widespread and excellent results.

### Veritable Storehouse of Knowledge

While corresponding with Secretary Eugene H. Taylor, of the Iowa State Chapter, A. I. A., Mr. Taylor has been pleased to forward us copy of a "Missionary Sheet," which his firm (Josselyn & Taylor Company, Cedar Rapids, Ia.), got up about twenty-five years ago, in the form of a newspaper sheet, and which was primarily intended to inform clients of the architect's real work in connection with preparations for building; and we note a great similarity between the subject-matter of this "Missionary Sheet" and the circular just gotten out by the Iowa State Chapter. This further augments some of the basic truths that underlie the profession of architecture. The relations between the architect and client as regards the architect's services in designing a building was the same twenty-five years ago as it is to-day.

This "Missionary Sheet" also shows that modern-day evils were not unknown twenty-five years ago. We quote from it as follows: "The history of competition shows that it is fraught with many evils and pregnant with danger both to clients and architects. Some of its evils are inherent in its nature, while more are prevented by obedience to the laws of common-sense and fair play.

"No less than forty-seven different forms of unnecessary evils have been enumerated, which were due to the action of clients as frequently as to architects, and which have repeatedly appeared in competition.

"Rarer than angels' visits have been the competitions that have resulted satisfactorily both to those inviting and to the invited. So gross have the evils become that many leading architects of the principal cities refrain from competitions in which justice is not assured to both clients and architects. Is not this wise and right?

"The principle of unpaid and unrestricted competition is unjust and wrong. Something for nothing is not business."

There is so much very good information in this little "Missionary Sheet" that we would like to reproduce it all, in full, but lack of space forbids. However, we shall hope to draw from its store of knowledge from time to time, as we were never more forcibly struck with the needs and evils of the architectural profession as upon reading this "Missionary Sheet."

#### The Architect as a Business Man

There has been much writing on the subject of the rareness of that architect who can succeed under present-day conditions solely because of his talent. Architects themselves will tell you that to make a success in the architectural profession a man must be a good organizer, with a

keen appreciation of modern business methods, and, while every one is familiar with the latter remark, its importance to the vital growth of the architect is too big for the statement to lose value by repetition.

Many architects will admit that too little attention is paid to the business end of the profession; that the practitioner very often gives scant notice to matters that would be of prime importance to the average business man. It has been pointed out that architects suffer from a lack of knowledge and proper understanding of the essential features and basic conditions of their profession, which has been numerously designated as that part of the architectural profession separate from the specific work of designing.

To be frank in the matter, the above allegations seem true in too many cases. Nevertheless, there are architects who have made a separate study of the so-called business end of their profession, resulting more noticeably in a careful arrangement of their offices and indicative of the headquarters of a man who has developed those qualities and factors with concern for commercial return.

To develop a knowledge of salesmanship, bookkeeping and other office work, does not require that the architect shall not still cling to the high ideals of his profession. Practices that formerly were frowned upon as unethical have of more latter years become more generally accepted as true standards of business.

The question in point, however, is that many architects could pay greater attention to the manner of getting business and work for increased efficiency and organization in the office, as judged by modern-day business standards, without impairing the dignity of their profession.

This is a frank statement of the matter, but the principle is right, and it will operate when applied to the architectural profession in precisely identical manner as when used by the ordinary commercial business establishment.



Detail of Attic—New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect.

# New Kansas City Orpheum Theater.

EXEMPLIFYING THE MODERN FRENCH RENAISSANCE STYLE.

Completed in the modern French Renaissance style, the new Kansas City Orpheum Theater, designed by Architect G. Albert Lansburgh, of San Francisco, recently opened to the public, has given to that city a playhouse of marked beauty and utility, well enabling one to judge of the magnificence of the architecture of the period.

Architect Lansburgh has designed six theaters for the Orpheum Circuit, and his work as a builder of the theater has been conspicuously brilliant.

The building covers a lot 100 feet wide and 146 feet deep. It is of concrete and steel construction, faced in terra cotta, closely resembling Tennessee marble.

The exterior effect is at once magnificent and genteel. The facade is excellent in workmanship and materials. The skill in which the various parts have been assembled is markedly noticeable.

The finely proportioned fluted columns and corresponding pilasters, with their full entablatures, support a richly decorated attic containing five panels, in bas relief of very excellent workmanship; the whole making an effect of elegance, pleasant to the eye and consistent with the true display of modern French Renaissance. The cherubic figures in these panels typify a spirit of joy and life perfectly. The designs evoke a spirit, animated and real, representing the sheer joyousness of living.

The center portion of the facade is characteristic of excellent taste and design, and the windows should be noticed. They are surmounted by pedimented ornamental lucarnes or bull's eyes.

Architect Lansburgh is a close student of the modern French Renaissance, and there is no more beautiful treatment of a facade than this work. The whole design is of great interest and strong theatrical character.

Polychrome, or many-color terra cotta, is used in the ceiling and walls of the lobby and vestibules. The lobby is vaulted and lighted by five alabaster bowls, which aid in bringing out the beauty of the color scheme.

The theater seats 2300 people and embodies all the conveniences and improvements of the modern day.

The interior is of considerable architectural interest. It has been designed to carry the eye smoothly along variant curves, uninterrupted by sharp angles.

The boldness of the scheme and the combination of walls and ceiling into one composition has forced the architect to observe more than ordinary precaution to keep from losing the force of the scheme. He has done this by completing the interior in a series of elliptical lines, arches supported at the walls by pilasters and wall columns. The lines are so strong that almost the impression of a vaulted ceiling is given. He has avoided much seriousness by introducing an exceptionally fine dome, which unites all the arches and serves as a climax, richly delicate in treatment, to the design.

Every line in the theater carries a rich profusion of decoration in excellent scale and taste. The architect has tied up the color scheme intimately with his designs, being made on a sufficiently broad scale to avoid too great a complexity. To rest the eye, these have been relieved with good-sized stenciled wall spaces, lightly tinted with peacock blue. The other colors are as delicate,—French gray, a formal lacquer of gold and a warmer tone in orange. The draperies are orange, and touches of burnt orange are picked out in the ornaments, high lighted with gold, here and there quieted with delicate mauve tones. The dome, forty feet in di-

ameter, was painted to represent the sky, studded with stars. A massive chandelier furnishes the lighting. Here, as in all other parts of the house, the indirect system of lighting is used. The side walls are paneled in blue, stenciled with gray and gold. Massive columns on each side of the proscenium arch and side walls support the domed ceiling, which is divided into panels and highly ornamented. The balconies are of the cantilever type.

There are four boxes on each side of the lower and mezzanine floors, and the top tier has eight on each side, here introducing a new and very successful arrangement, which gives an excellent sight line, as well as a decorative feature.

The curtain is of wire-woven asbestos and weighs more than twelve hundred pounds. It is painted in imitation of velvet drapery. Directly behind it is a silk velour curtain to match the other house draperies.

Particularly noticeable is a mural painting by W. De-Leftwich Dodge, entitled "Dance of Youth"—which covers a large panel over the proscenium arch.

No stage in the West is so thoroughly equipped as this, with its 1700 lights in all colors, swung in brilliant reflectors from the flies. Borders and foot lights are all under a control system, which enables the operator to produce any light from sunrise to sunset.

Twenty-two dressing rooms are provided for the performers. The orchestra is given a spacious room directly under the pit. A constantly changing atmosphere is provided by a ventilating system, whereby the air is washed and cooled or heated as the temperature may require. Forty thousand cubic feet of air is changed every minute the fans are working.

The seats are finished in mahogany, with comfortable stuffed leather seats and backs. A splendid view of the stage is offered from any position in the auditorium, whether it be on the main floor or at the highest point in the gallery, and the acoustics are really remarkably good.

Good taste is noticeable in the architectural treatment of the foyer, fitted up for women, and much ingenuity has been displayed by the architect in the conception of this beautiful room. Balconettes and French windows overlook the front approach to the theater. It is provided with divans, lounging chairs, writing desks, telephones and dressing tables. Architecturally, the room is a very original design, and one of the features of the theater. This room has all the conveniences of the lobby of a first-class hotel, and embodies the pleasurable conveniences of a thoroughly equipped and modern ladies' dressing room.

Club rooms have also been provided for men in the basement, with smoking and lounging rooms, fitted up in comfortable manner. A handsome fireplace adds cheer to the scene. Artistic paneled glass domes heighten the warmth of the room.

The architect has contrived a fine architectural shape in the double vestibule entrances of the theater, from which open a spacious arched lobby, where the same color terra cotta is used as in front, relieved with polychrome panels. The lobby floor is random marble mosaic, in figured panels and patterns. Five sets of double doorways lead to the foyer. The stairways and doorways, leading to the balconies, are wide and convenient.

From the standpoint of safety, there has been nothing in this line better designed. In the first place, the building is isolated, being surrounded as it is by a street and three

Continued on page 88

## The Ancient Church of Kilpeck.

There are many most astonishing examples of the architecture of the Norman period still remaining in England, some only fragments, to be sure, but all, in their entirety, graphically recording a stormy period of history. Durham Cathedral is, of course, the finest and largest example, but portions of most of the cathedrals, several castles, a few houses, and many small churches bring their testimony also.

Among these small churches one of the most remarkable is that of Kilpeck, a few miles from Hereford, in southwestern England. Hereford Cathedral itself, though a comparatively small structure, is an excellent example of Norman work, but Kilpeck Church, and particularly its southern doorway, is unsurpassed anywhere in England. There are other remarkable specimens of richest Norman work throughout the country: the western entrances of the cathedrals of Rochester and also of Lincoln, the Prior's Doorway at Ely Cathedral, the doors of the church at Iffley, another well-known example of splendid Norman building a few miles from Oxford,—these are only a few of the typical late-Norman productions, so finely illustrative of the last three-quarters of the twelfth century. That of the half-century preceding is, as we know, simpler and ruder in construction, "the age of the axe instead of the chisel." The Kilpeck Church, however, is a small sample of massive Norman work at its height. The heavy round arches of the interior are decorated with rude representations of early saints, but it was reserved for the sculptor of the exterior to weave together with ingenious spirals gruesome reptiles and curious grotesques, with strange figures of knights in armor,—the whole doorway somehow reminding one, though vastly better in execution, of the extravagant and savage decorations of a ruined Aztec temple. The beakhead motive, in its utmost elaboration, can be studied here at Kilpeck above the low, round-arched doorway; indeed the whole is a remarkable piece of Norman work.

This Norman work of extreme western England has indeed a peculiar character of its own that is most fascinating, differing as it does from that of other sections of the country. This difference is partly owing to its proximity

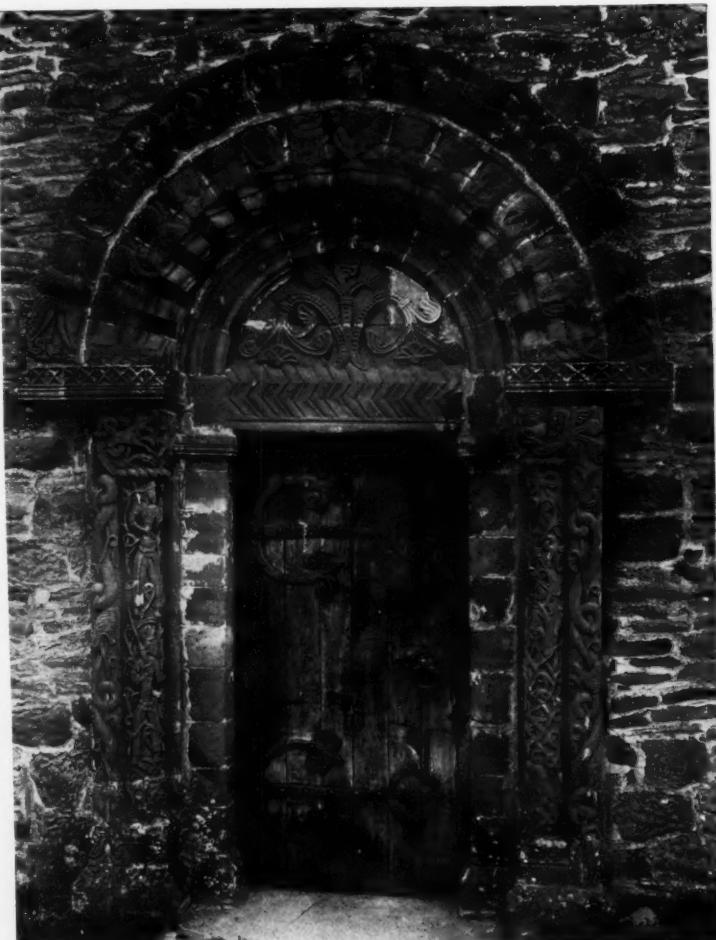
to Wales, that portion of the British Isles which keeps alive to this day its traditions of a fierce and warlike past. The natural scenery of Wales itself, its stern and lofty mountains and its rugged coast, have done much to keep alive these wild traditions. Whoever has visited Shrewsbury, for instance, that town a little to the north which has such a stirring history, and which was in the very center of so

much of the border warfare, will recall the old half-timber houses of the town, how striking they are in color how bold in design, their idiosyncrasies of architecture fairly startling the tourist. Bustling as this town may be to-day, fierce memories of the past seem to hang over it, and influence its very life.

Herefordshire has many vastly interesting examples of Norman work which illustrate this spirit of conflict. In the tympanum of Brinsop Church for instance (c. 1150) is a spirited carving of St. George overcoming the dragon (the knight in full armor and on horseback), while the church of Shobdon has unusually elaborate designs covering the entire surface of the pillars, of men in armor and struggling grotesques and fearsome beasts, curiously interwoven in Runic designs. This Celtic imitation of wickerwork, marvelously intricate in pattern and so widely adopted by other early nations, has been indeed greatly admired for centuries, and forms a whole subject of itself.

The little church of Kilpeck well illustrates much that has been said in the foregoing, but it is an example of "much in little."

One authority includes it "among the most interesting churches of the Norman period" in Herefordshire, and also refers to it as "one of the most remarkable structures of rare Irish (or Celtic) Norman architecture." It is the southern entrance of this church, however, that is, as was said, so remarkable. That many of these early doorways throughout England have escaped destruction is most fortunate. One well-known writer has said: "There seems to have been a desire in the architects who succeeded the Normans to preserve the doorways of their predecessors, whence we have so many of these noble, though, in most cases, rude efforts of skill remaining. In many small churches, where all has been swept away to make room for



Doorway of Kilpeck Church

alterations, even in the Perpendicular style, the Norman doorway has been suffered to remain. The arch is semicircular, and the mode of increasing their richness was by increasing the number of bands of moulding, and, of course, the depth of the arch. In these doorways almost all the ornament is external, and the inside often quite plain.

Almost every county in England contains many Norman doorways; they are very often the only part which patching and altering has left worth examining, and they are remarkably varied, scarcely any two being alike. These rich and elaborately worked Norman doorways all belong to the latest division of the style, and are of the time of King Stephen or Henry II. They have frequently been inserted in earlier Norman work, as at Lincoln and Rochester. The church at Kilpeck is an architectural jewel, though a jewel in the rough. Few changes have been made in this little building during the centuries, and, carefully repaired, it stands to-day a unique memorial of a departed age.

Church architecture, and especially those buildings constructed in early periods, have always been a source of much interest for their wonderful beauty, and when one stops to consider the wholesale ruin of churches in the course of the present war, these olden churches that are to be spared such ravages will be the source of increased interest.

The degradation of churches at Louvain and at Ypres and the untold damage done to the masterpiece of French architecture, the Cathedral of Rheims, is but a small particle of the damage executed.

It is appalling to think of the extent of the havoc that has been wrought, not only in these larger cities, but to the splendid cathedrals dating back hundreds of years, which have been razed in the inconspicuous towns and villages of Belgium and France. The whole world knows about the damage to the Cathedral of Rheims, when thousands of shells were poured into that building, and at the present rate of destruction of such masterpieces of architecture many more will probably be wiped out within a short time.

It is not my purpose to make mention of this latter phase only for the purpose of emphasizing the importance of Kil-



Kilpeck Church

peck and other English churches, which from present indications may be spared destruction.

England is said to stand first in all Christendom in the number and antiquity of her churches. The function of a church in a parish was much more varied and intimate with the life of the people in the olden time than now. However, religious change has not tended to the destruction of the architecture of these old churches. The spirit seems to have been preserved in contrast to the many rebuildings which Continental churches exhibit.

Churches in England of all periods undoubtedly form a unique subject for architectural study. Space forbids to dwell upon many of the buildings and interesting works of art. Inspiring bits of architecture find their dwelling place in the old churches. There is to be seen a multitude of examples of the finest work of the mediæval artists and craftsmen.

The "restorations" that have been made in some instances might have been replaced by something comely, though new, and it is to the old churches "unrestored" to which we must turn for inspiring thoughts—treasures for all nations.

The ravages of time are viewed with resignation; it is something inevitable, but the contemplation of some of the more recent "restorations" has provoked considerable alarm. Hence, an additional reason for the preservation of the olden churches.

It might be mentioned that steps are already under way in England for the restoration of many of the churches and cathedrals that have been damaged in the war area. A special board of architects has been named for this purpose and many views have been expressed and lectures delivered on the best means and method of proceeding with the work after the war has ended. It is certain that profit will result from some of the past work of this nature and every effort will be made for restorations that really are significant of this word's meaning.

An historic style of architecture is distinctive, and portrays the character of people during certain periods of history. Its value to the world is too unmistakable not to require "serious thought" when restoration is mentioned.



The Nave, Hereford Cathedral

## Important Information for the Client.



Persons who have never employed an architect are apt to be at a loss as to the proper method of procedure, while many who have had some experience may not be familiar with the intricacies of architectural practice.

They may not understand that it is a *profession*; calling for men of the highest integrity, business capacity and artistic ability; to command respect and confidence as advisers, and to sustain a grave responsibility to the public. No one may have given them practical information as to the relations that should subsist between client and architect. Experience has shown that lack of information on this subject is one of the most fruitful causes of trouble in building. The following is a brief outline of vital elements in building operations:

1. The owner, who is to spend the money, as he does not and cannot know what he is buying, must trust the architect. Therefore he should first of all assure himself that the architect is worthy of his confidence; second, that he is fitted by study of economy in plan, construction, and material to discharge the grave responsibility; in short, that he has the right to the professional title.

2. The owner's interests are to secure the most available service, suitable design, best construction, most economical expenditure of funds. These can only be obtained by employing, not as a luxury, but as a necessity, an expert, a competent and reliable architect. The owner will be most benefited by choosing an architect before deciding upon anything else connected with the building project (in many cases even before fixing the building site and limit of expenditure), thereby gaining from start to finish the services of the expert's technical experience and knowledge in every phase of the problem.

3. Architecture in its highest element is a fine art—it is never a *trade*. The architect's practice is upon the same basis as that of the physician and the attorney; each is a *profession*, and selection should be on exactly the same principle, upon record for character, integrity, ability and fitness for the service; a sensible, business-like, time and trouble-saving method.

4. Designing a building is a process of evolution. Nothing but the full working out of the problem can produce this. The architect is a sort of clearing-house, in adjusting a multiplicity of ideas, wishes, needs, financial and other details. It is practically impossible for an advance program to be an absolute guide to the best eventual scheme. The data compiled by an architect for such purpose may be quite different from that which at the start suggested itself to either owner or architect. The owner should get the benefit of his architect's best ideas and various solutions of the problem, not simply what is presented to catch the attention, and "get the job"; the services of an expert, not of a mere draftsman.

5. The fallacy of the employment of an architect on the basis of the amount of commission, does not in any way represent a wise measure. "Penny wise and pound foolish" applies most appropriately to the attempt to practice economy by choosing cheapness, merely to save the fair price for good service.

E. N.—This article was prepared and published by the Iowa State Chapter of the American Institute of Architects, to which full credit is herewith given.

An incompetent man doing good work for a small commission might easily use a large per cent of the cost of the completed structure in wasteful use of material, inefficient planning, misimproved opportunity, costly and unnecessary construction, with unsatisfactory results; whereas a competent man charging a higher rate for his services could give a very much higher percentage of return for the investment of funds, resulting in an ultimate saving.

6. Architects, like doctors and lawyers, place different values upon their services, and their services likewise vary in merit and results. This should not confuse the owner—the best is likely to be the higher priced. It is safe to rely upon the reasonableness of the rates for minimum fees and principles of practice as recognized by the leading representatives of the profession and the higher courts.

The right kind of professional service can only be maintained by adhering to the established standard of service; payment of adequate charges, based upon what long and wide experience has shown to be fairly remunerative; and methods that insure equitable relations between owner and architect.

The reverse of this takes the heart out of the labor and invites temptation to poor, worse still, dishonest service.

7. Competition may be the "life of trade," but, as history shows, it is a delusion and a snare in professional practice, fraught with evils and pregnant with danger alike to client and architect.

Architectural competition is usually a handicap to the end sought. The functions of an architect are many and varied; he can be judged better by his reputation and completed work than by a preliminary sketch which represents merely one of his minor duties.

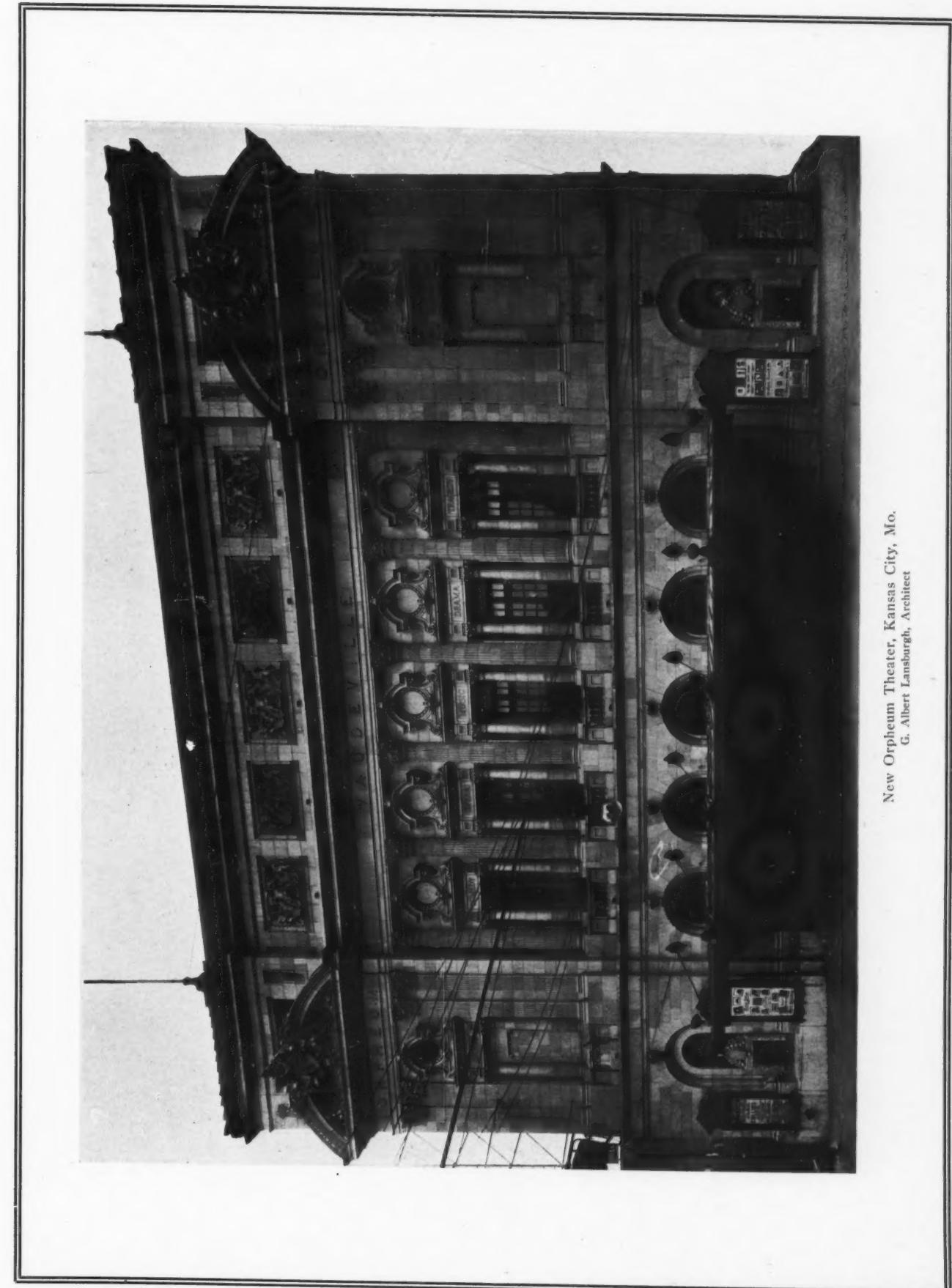
Do not expect gratuitous competitive designs, any more than diagnoses, prescriptions and briefs. Plans are not like merchandise, kept in stock, to fit all individual needs; the model plan exists only for its individual place and condition; each building requires special time, study and labor—the architect's capital.

The unethical and uneconomic principle of "something for nothing" (that allures many), coupled with the prevalent lack of knowledge of correct architectural practice is responsible for an intolerable condition. So gross, deplorable and prevalent has the lack of sane business-like action and good faith between client and architect become, that self-respecting and upright architects more and more refrain from all competition.

8. Designs presented in competition are likely to be the product of clever draftsmanship; instruments for working *at*, rather than *with*, the owner. With competitive drawings it is difficult to disassociate the excellence of the design from that of the catchily rendered drawing, or to determine to what extent the one presenting the drawings is to be credited with the design, since their preparation is easily assigned to a picture maker, by whose handiwork it is absurd to judge the architect.

It is often impossible to correctly weigh the relative merits of contestants, by hearing them present claims for consideration, and equally impossible to weigh the relative merits of preliminary sketches, rapidly reviewed in the limited time ordinarily accorded to the task.

Such competition is a severe temptation to employ tricks of draftsmanship and promise of more than can be performed in the way of securing a desirable structure at a



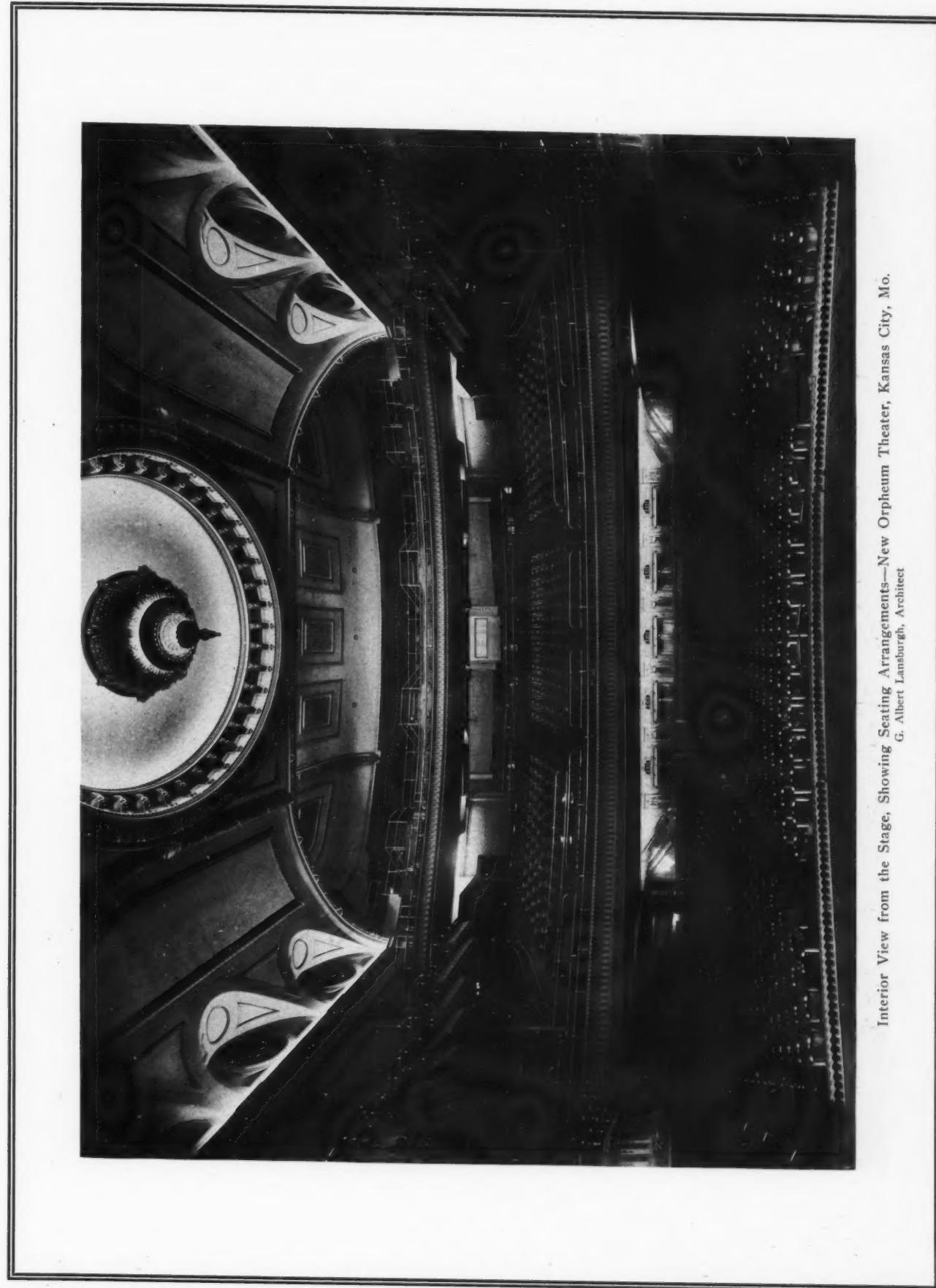
New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect

THE ARCHITECT  
August, 1915



Interior View, Showing New Arrangement of Gallery Boxes—New Orpheum Theater, Kansas City, Mo.

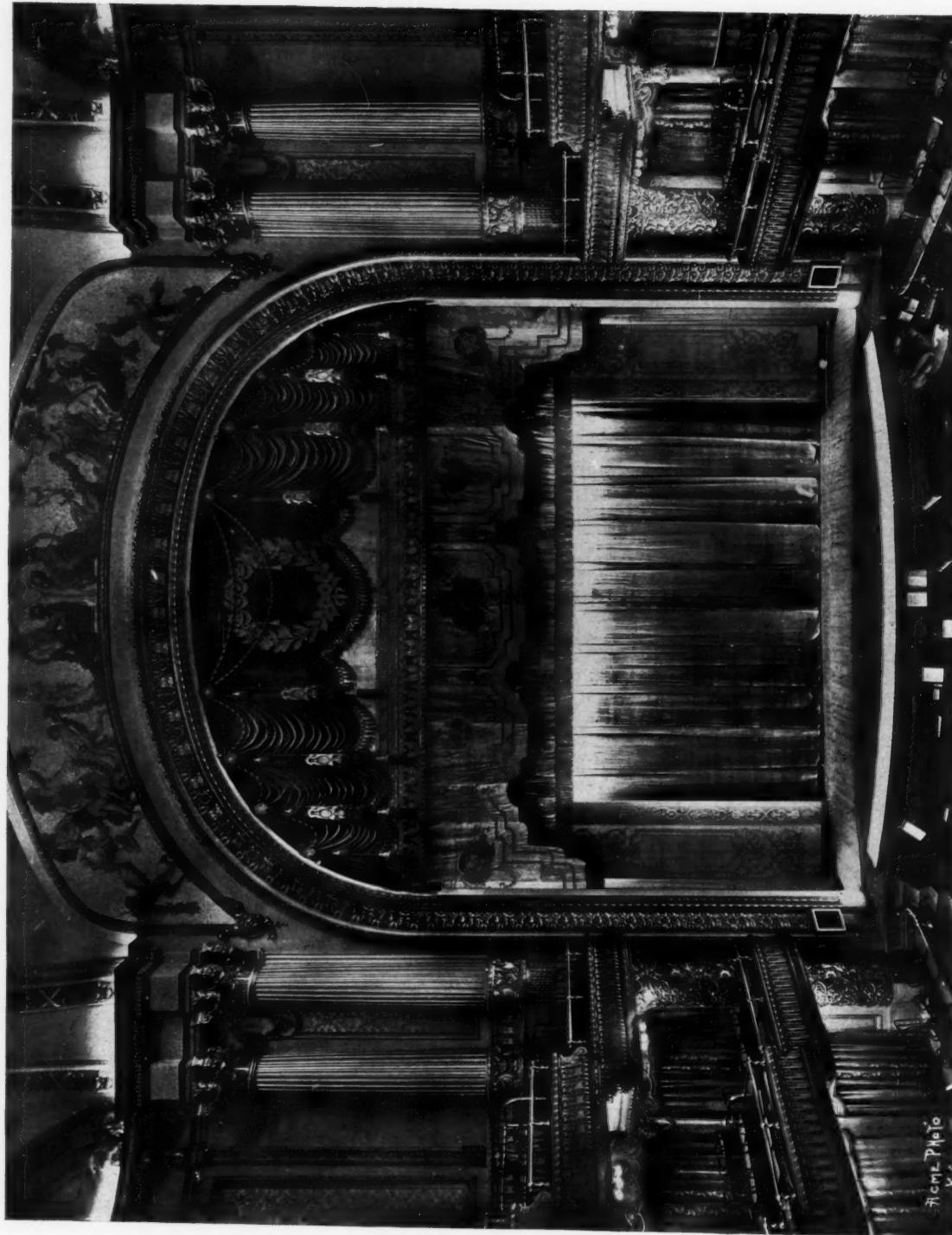
G. Albert Lansburgh, Architect



Interior View from the Stage, Showing Seating Arrangements—New Orpheum Theater, Kansas City, Mo.

G. Albert Lansburgh, Architect

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August, 1915



Proscenium Arch, Showing Decorative Panel, "The Dance of Youth," by William De Leftwich Dodge—New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect



General View of the Interior, Showing the Indirect Lighting System—New Orpheum Theater, Kansas City, Mo.

G. Albert Lansburgh, Architect

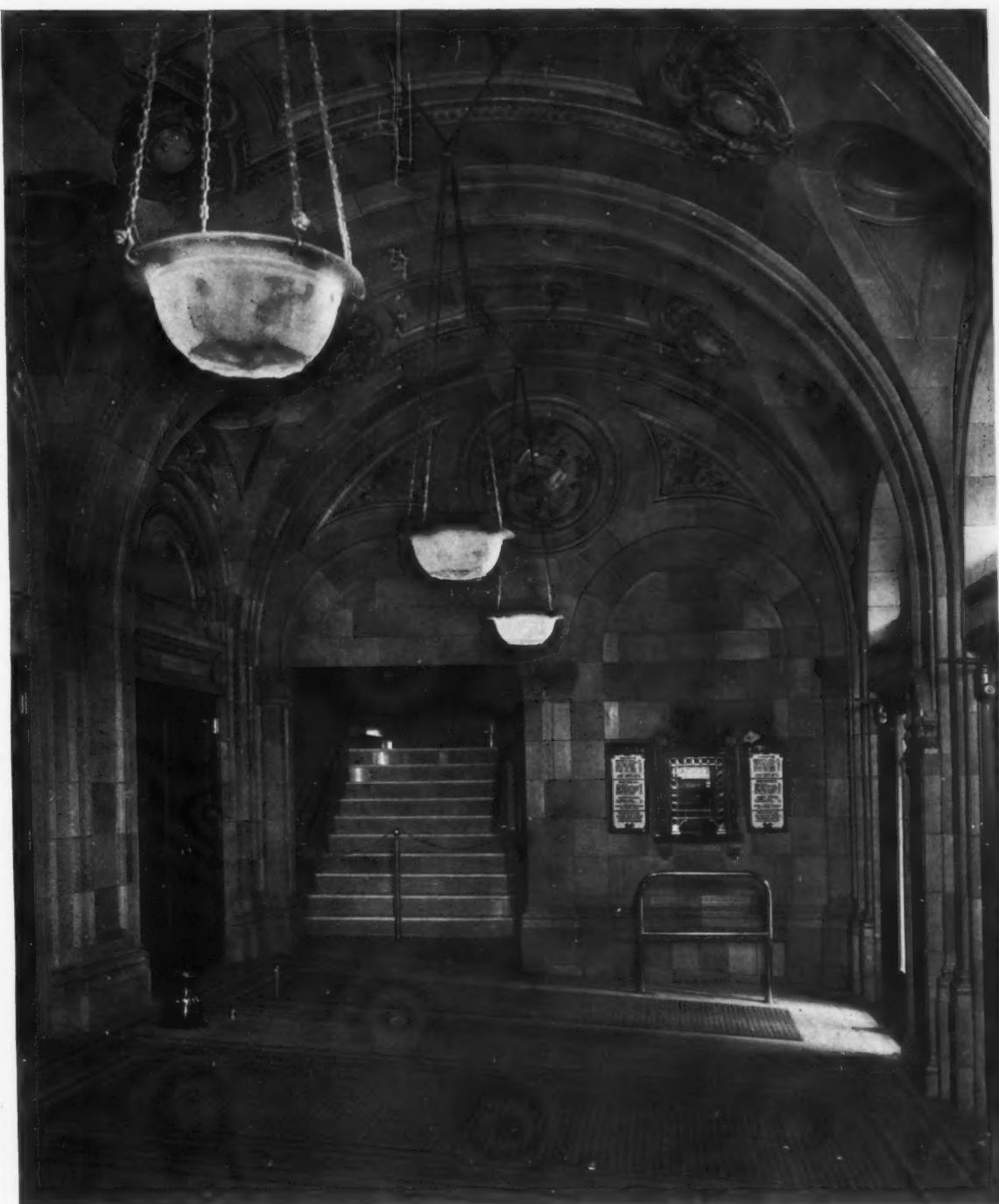
THE ARCHITECT  
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Ladies' Foyer



Detail of Pediment—New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect

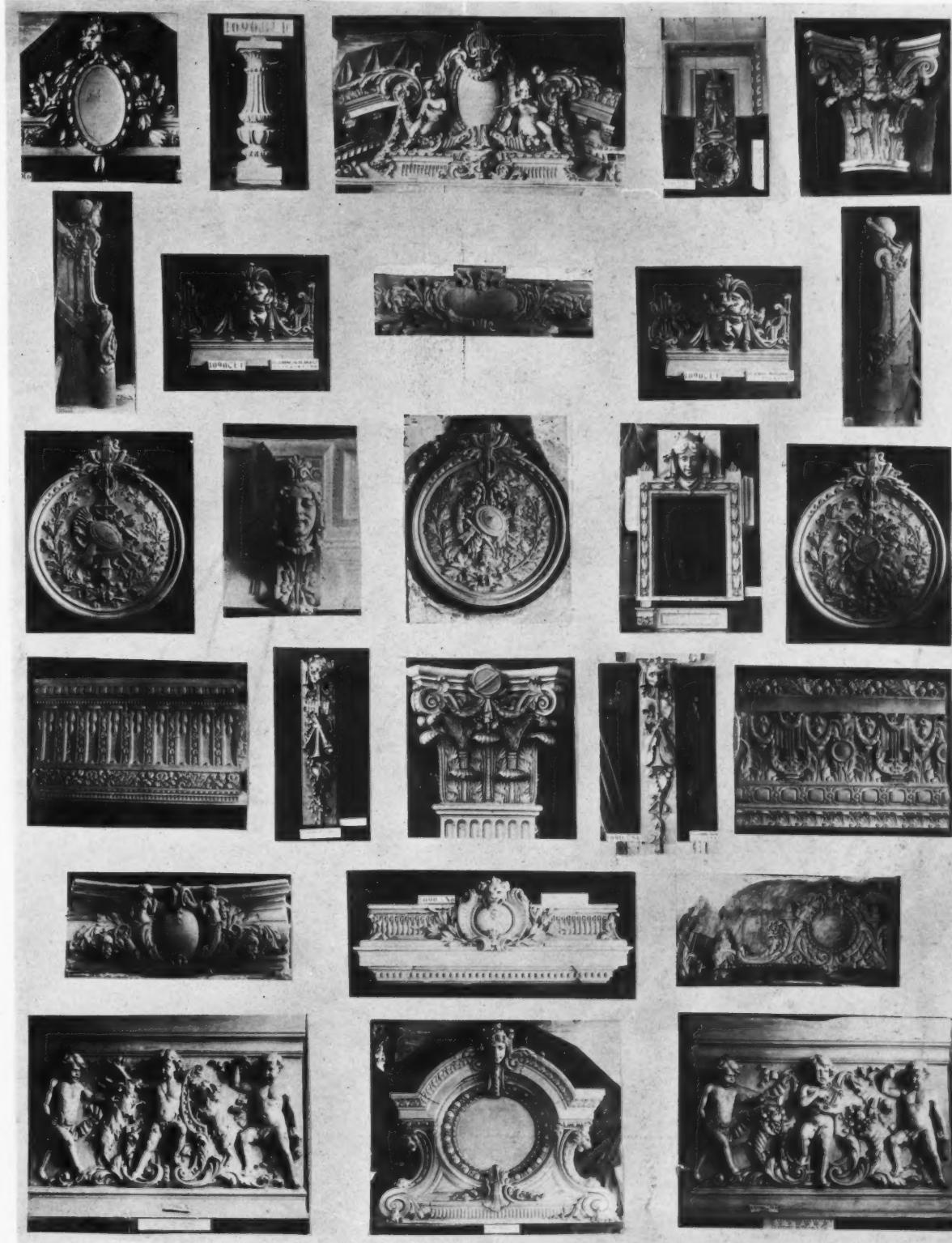


Lobby, in Polychrome Terra Cotta—New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect

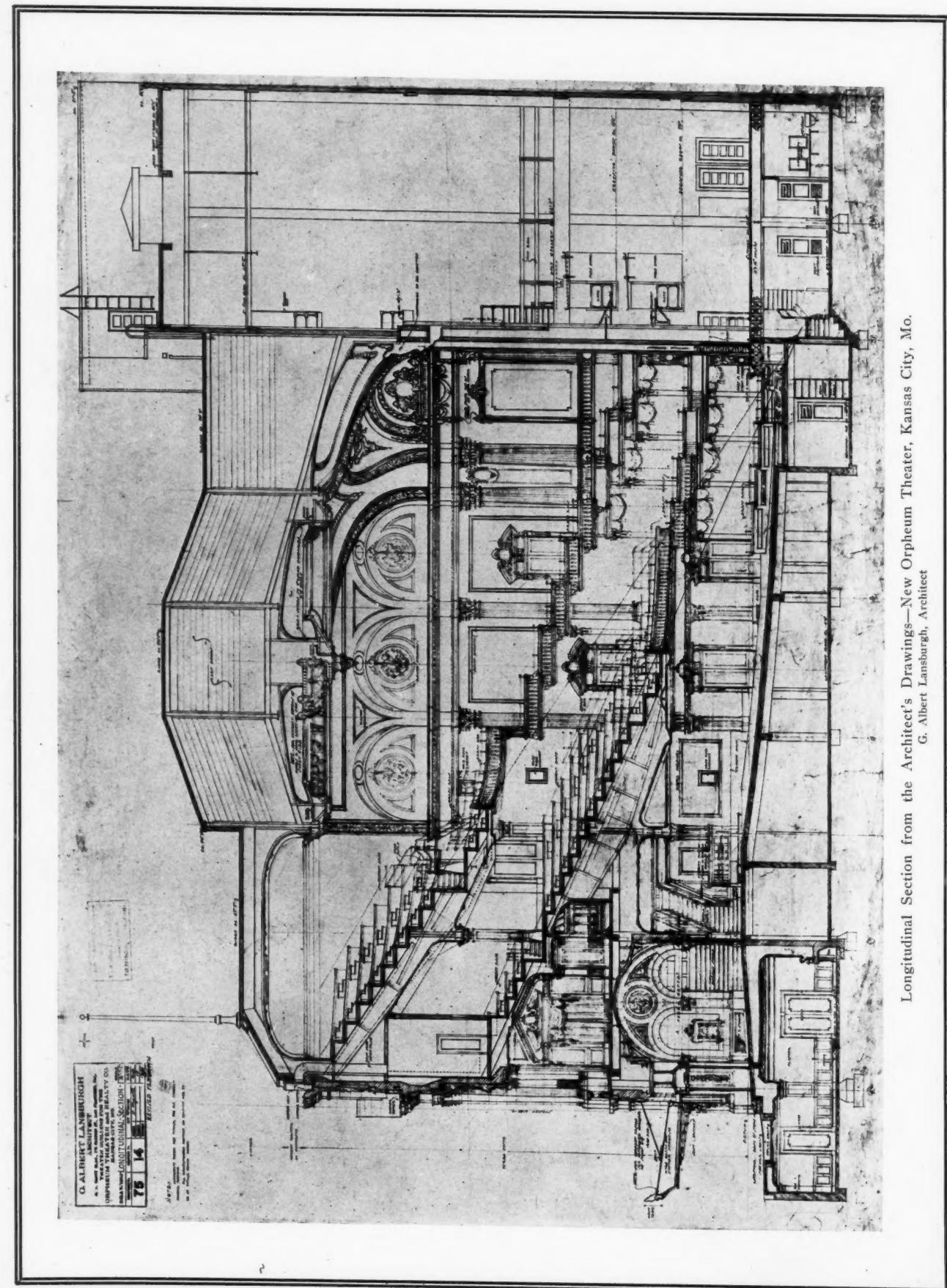


Detail of Second-Story Fenestration—New Orpheum Theater, Kansas City, Mo.

G. Albert Lansburgh, Architect



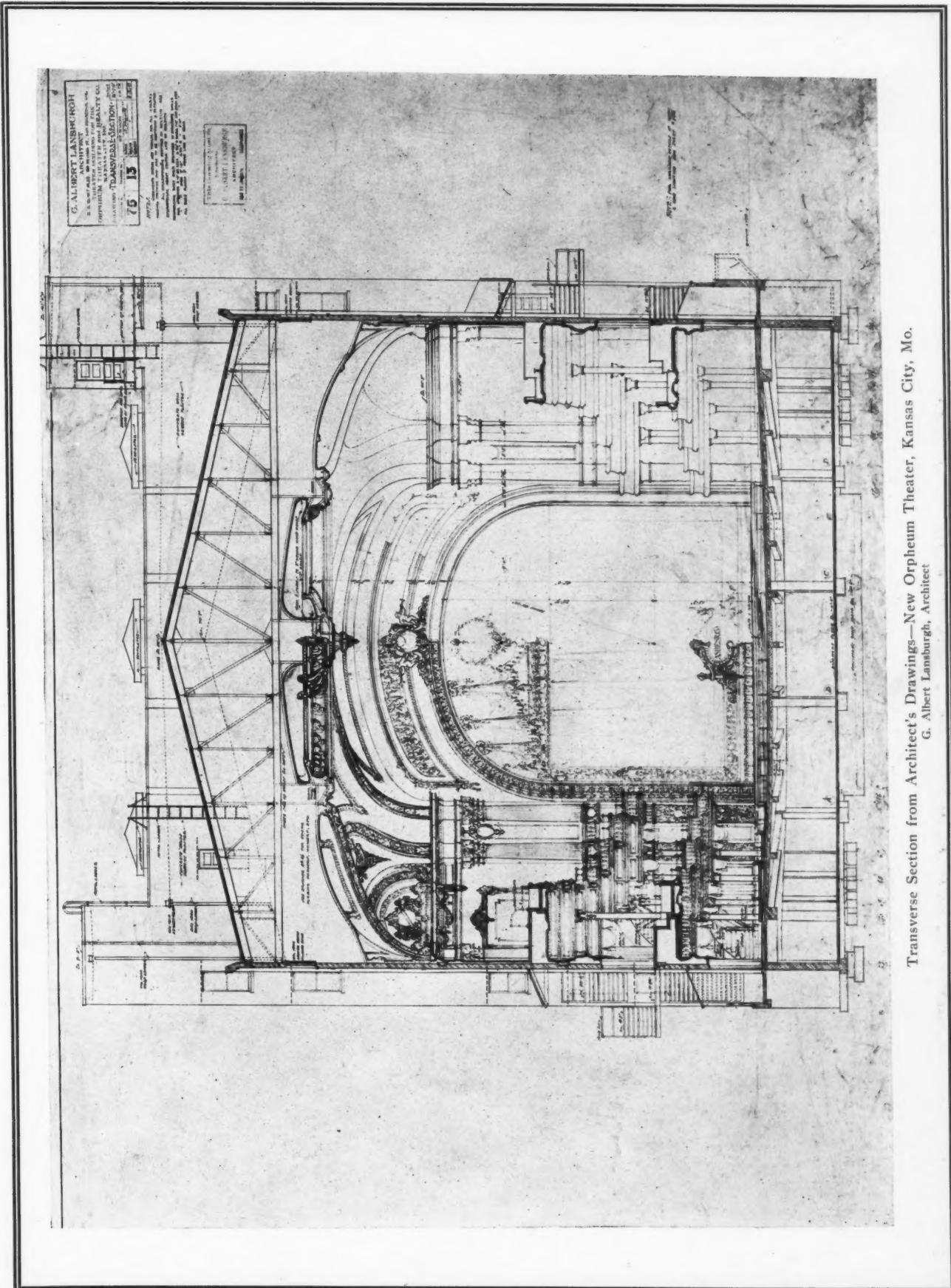
General Details—New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect



Longitudinal Section from the Architect's Drawings—New Orpheum Theater, Kansas City, Mo.

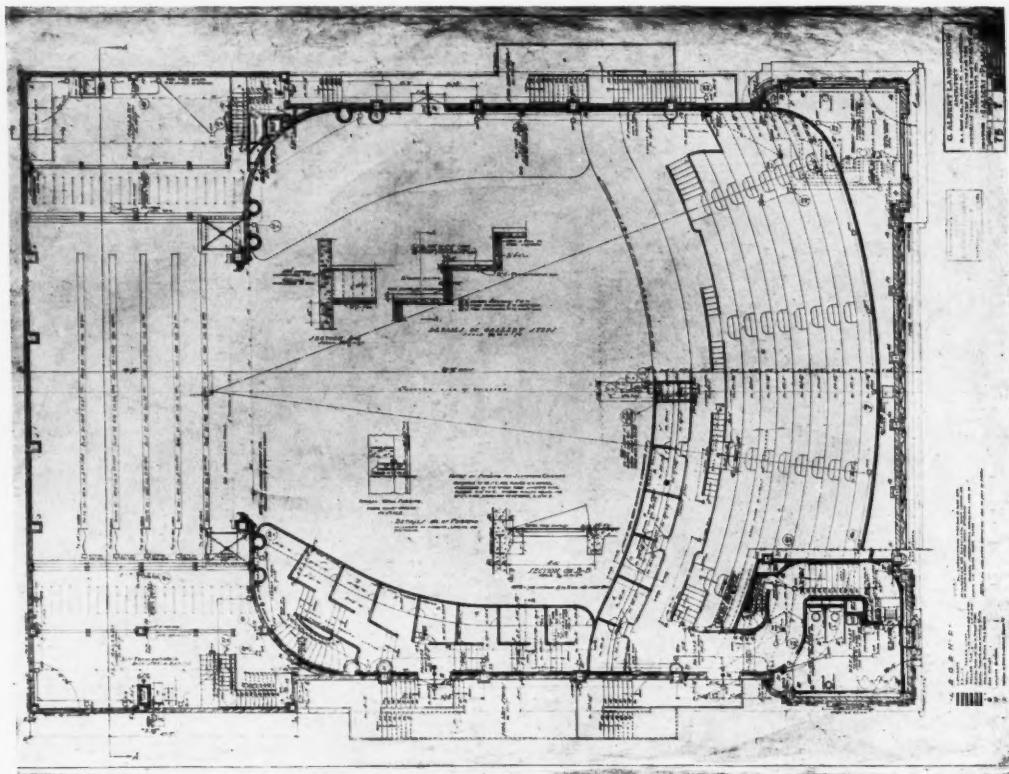
G. Albert Lansburgh, Architect

THE ARCHITECT  
August, 1915

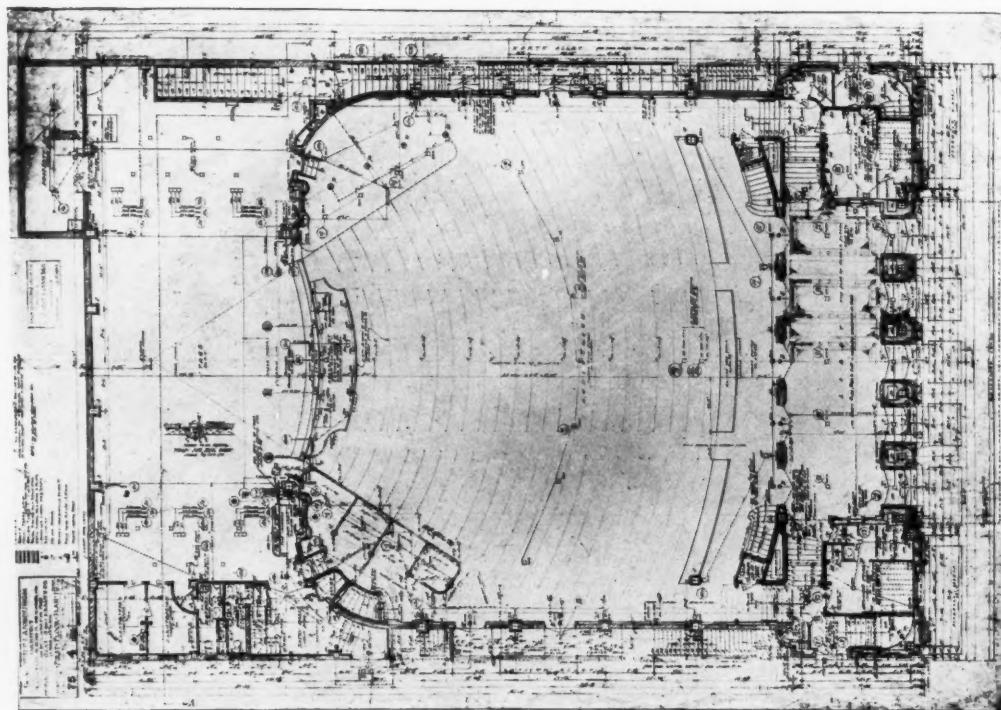


Transverse Section from Architect's Drawings—New Orpheum Theater, Kansas City, Mo.

G. Albert Lansburgh, Architect



Gallery Plan



First or Orchestra Floor Plan

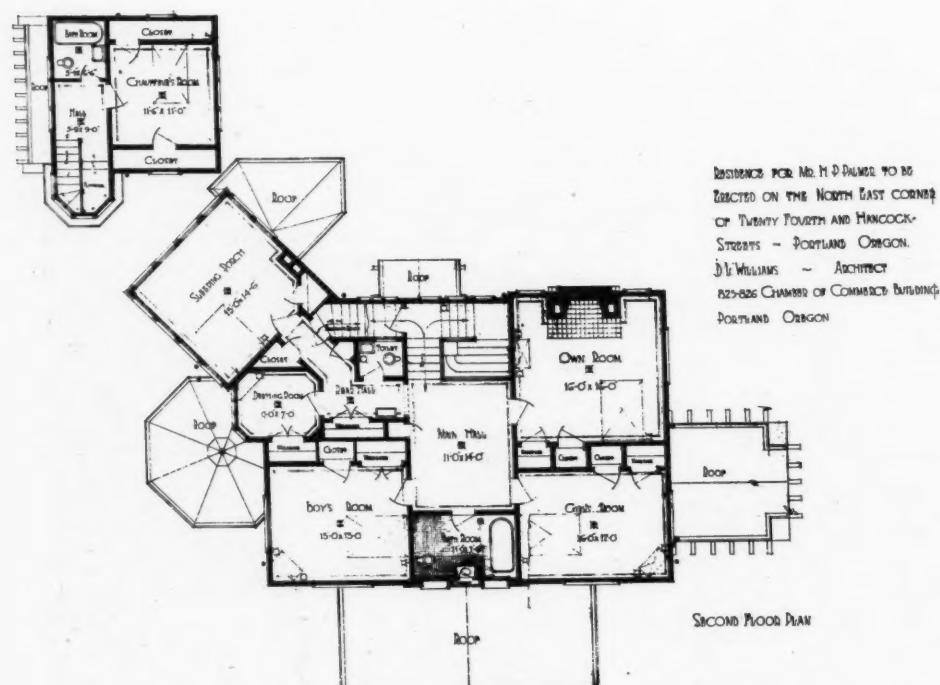
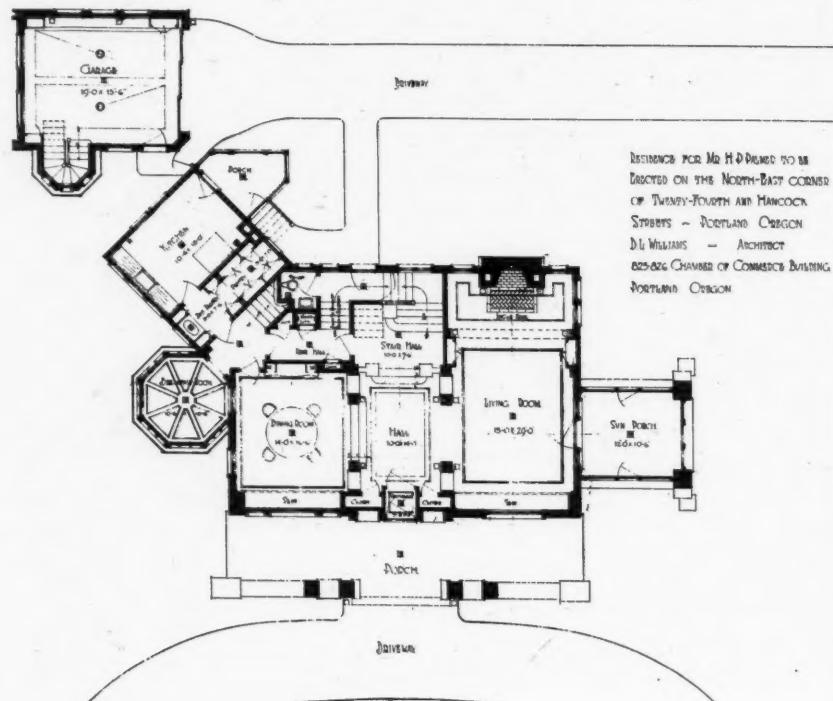
New Orpheum Theater, Kansas City, Mo.  
G. Albert Lansburgh, Architect



Residence of H. P. Palmer, Portland, Oregon  
D. L. Williams, Architect



Residence of H. P. Palmer, Portland, Oregon  
D. L. Williams, Architect



Floor Plans, Residence of H. P. Palmer, Portland, Oregon  
D. L. Williams, Architect



Dining Room



Ingle Nook—Residence of H. P. Palmer, Portland, Oregon  
D. L. Williams, Architect



Living Room



Staircase and Entrance Hall—Residence of H. P. Palmer, Portland, Oregon.  
D. L. Williams, Architect

given expenditure. Since all want the most that can be had for the appropriation the competitor who will yield the most to these practices is too often the one accepted. His inability to make good manifests itself too late.

9. The date set for holding a competition may be one unavailable to the best fitted architect for the work; again the time limit for preparing the design may be inadequate for proper study; and furthermore he may not care to devote the time and expense necessary to a competition. Hence the selection is limited to the less capable.

10. Rather than limit securing a design to selection from among the few that a competition may bring forth, it is wiser for the owner to do this by intimately co-operating with his directly chosen architect in careful consideration of all accessible prototypes and alternative studies.

11. The altruistic and academic competitions among architects and draftsmen for prizes and not connected with any specific building operation, are elements of educational stimulation, approved and fostered by the profession and public-spirited laymen. The public has no commercial interest in them and they are not to be confused with the ordinary competition which, save in exceptional cases, is held to be unwarranted.

12. One of the most well-known, experienced and successful architects of the nation, much of whose excellent work was obtained by competition, said: "I fail to know of a single commission in this country awarded by competition, in which the client would not have been better served had the architect been appointed by direct selection."

13. When a competition is unavoidable or advisable, a study should be made of "*Architectural Competition—A Circular of Advice and Information*" (Document number 114) and "*Standard Form of Competition Program*" (Document number 115), issued by the American Institute of Architects. These are a treatise and summary of the whole matter which show how to establish equitable relations between owner and competitor.

#### AFTER THE ARCHITECT IS CHOSEN.

Make up your mind to what you must have and can afford; either take what your money will pay for, or do not build. Have a distinct understanding with him.

Do not hurry; be satisfied with the sketches before working drawings and specifications are made.

Do business only with a suitable and honest contractor; "you cannot get blood out of a turnip."

Arrange every step beforehand in writing; pay fair prices; value for value the world over—you will get no more for your money than you pay for.

Watch the work but do all business through your agent and superintendent, the architect, who is the master-builder, and he alone should give orders to workmen.

Refer the contractor who comes with suggestions and real or fancied errors to the architect, to whom he should have gone. Make use of the architect's advice and avoid the chance of marring the whole, with incongruous furnishings within and environments without; the mind that designed the house should be manifest throughout.

Actually rely upon and follow him in all points. Do not appeal to contractor or journeyman. Do not be stampeded by neighborly critics and advisors. Keep in mind this pertinent thought:

"Can you tell me why  
Men with a taste for art in finest forms  
Cherish the fancy that they may become,  
Or are, Art's masters? You shall see a man  
Who never drew a line nor struck an arc  
Direct an architect, and spoil his work,  
Because, forsooth! he likes a tasteful house!  
He likes a muffin, but he does not go  
Into his kitchen to instruct his cook;  
Nay, that were insult. He admires fine clothes,  
But trusts his tailor. Only in those arts  
Which issue from creative potencies  
Does his conceit engage him."

—J. G. HOLLAND, in *Kathrina*.

If you follow these few hints, in all that they imply, there is no reason why your house should cost you a cent beyond the estimated price, or why it should cause you more worry than buying a new suit of clothes.

The American Institute of Architects, composed of the leading architects of the nation, has for its object: "To organize and unite in fellowship the architects of the United States of America, and to combine their efforts so as to promote the artistic, scientific and practical efficiency of the profession."

The Iowa Chapter of this society offers the above for careful consideration, and will be pleased to furnish copies of the documents mentioned, other information, or discuss any points with interested persons.

Respectfully,

WILLIAM L. STEELE, *President*,  
Sioux City, Ia.

EUGENE H. TAYLOR, *Secretary*,  
Cedar Rapids, Ia.

May, 1915. Pub. No. 14.

## Giving the Touch of Beauty to Cement.

BY A. M. MACMURRAY.

It was recognized almost at the beginning of the great development of the American cement industry, that cement for building purposes would be a leading, if not the leading, material. Its superiority, its strength, durability and economy had been proved, and it was to be expected that a way would be found to overcome its few disadvantages.

Chief among these was the tendency of cement and concrete to absorb moisture. Second was the dull monotony of color of ordinary cement, and the difficulty of making several batches of cement of like shade. Occasionally, too, ordinary cement takes on a spotted or streaked appearance, especially after protracted rains and snows.

Because of its character and its adaptability to almost any kind of construction, cement has often been the logical material to use, but its dull, blue-gray color so detracted from the artistic effect desired that it was much less employed than it otherwise would have been.

Ten or twelve years ago the use of cement was greatly retarded by these objections, held not only by architects and builders but also by those for whom buildings were to be erected.

But the very objections to cement were an incentive to finding the means of overcoming them. Obviously, the remedy was to discover how to preserve cement and concrete from external influences by an appropriate coating, yet one which would have no deteriorating effect upon the cement itself.

It is essential in any cement coating that it contain no elements of a corroding nature. It is equally desirable that it dry on the walls without destroying the texture of the material.

In the case of a wash or cold water paint, which has been tried in many cases, the effect has been a coating as absorbent as concrete or even more so. After a storm, the blotches and discolorations are still visible. Another point about a wash or cold water paint is that the glue or caseine binder soon rots under the action of the alkali and dampness, and dusts or washes off.

Mixing colored pigments with the cement itself has not proved generally satisfactory. In some cases, the addition of foreign coloring matter weakens the concrete. There also arises the impossibility of obtaining uniformity of color.

Lead and oil paints are out of the question. This is so for the reason that any coating which retains oil after drying is quickly acted upon by the alkali in the cement, forming a soapy mixture which never dries hard. Nothing containing neutralizing agents is usable to much advantage.

All of these facts have been recognized by the leading paint manufacturers of the country. It is generally ac-

cepted that the only medium is one which does not contain an oil affected by alkali, and one which evaporates at once as soon as applied. This leaves the base of the coating an integral part of the surface; it preserves the distinctive texture of the cement because it settles in the pores.

In the manufacture of Bay State Brick and Cement Coating, Wadsworth, Howland & Co., Inc., 139-141 Federal St., Boston, have a coating which has been proved by the most practical tests to be ideal. Leading architects and contractors throughout the country have tried it and pronounced it entirely satisfactory, and this is having a marked influence upon the popularity of cement and concrete for homes as well as office buildings.

This coating is manufactured from a base of a concrete nature, does not turn yellow and admits of many pleasing tints. It has opened an unlimited field of artistic possibilities to the architect, contractor and owner.

In hundreds of cases the superiority of this coating has been proved by the fact that neither rain nor snow can penetrate the cement walls. Consequently there is no discoloration and the natural dampness of the cement is reduced to a minimum. Moreover, the early tests, made as long ago as a dozen or fifteen years, have established the durability of Bay State Coating.

Architects and builders here and there still adhere to antiquated methods, or continue to experiment in the treatment of cement, but hundreds of architects and contractors in all parts of the country have tested Bay State Coating and endorse it as the most practical means of overcoming the objections to cements, concrete and stucco.

One of the most interesting pieces of evidence which the manufacturers of Bay State Coating submit to architects and builders is the comparative photograph showing a concrete or stucco building before it has been coated and afterward. This is only one of the many interesting photographs reproduced in the new catalog which Wadsworth, Howland & Co., Inc., have published, and will be glad to send to those interested.

It is surprising to note that in all sections of the country there has been a remarkable increase in the use of concrete and stucco for building of all descriptions. This is especially true in many cases of prosperous and successful men who are seeking homes picturesque and beautiful and believe that cement outranks all other material for their construction.

The Western States have contributed largely to the increased use of concrete, not only in the residence class of construction, but in large office buildings and factories as well. Bay State Coating has been extensively used throughout this section, where its many excellent qualities are widely known.



CAPITOL BUILDING - SALEM, OREGON.  
W. C. KNIGHTON, PRESENT STATE ARCH.

## Definite Specifications for Materials.

**Satisfactory Roofing:** Nowadays, people often remark with disgust, "It is impossible to have good roofing done any more, either the tin is not good or there are no good tin roofers." Sometimes there is ground for this dissatisfaction, but sweeping charges like these do not mend matters. The charges are not true, neither do they point the way to better roofs. What is the real trouble? Let us as house owners see if we are at fault. The self-examination may lead to the light. What do we do when we have a building to roof? If it is a new one, we may leave it to the architect. But frequently the architect is so afraid we will think him "owned," or at least unduly influenced by some manufacturer that he dodges the responsibility of naming materials which he knows are good and simply says, "Best materials must be used." He may be a little more definite and specify "Old Style Roofing Tin" or "40-lb. Hand-Made Tin Plate," but in actual practice this generally works out very little better than the first expression.

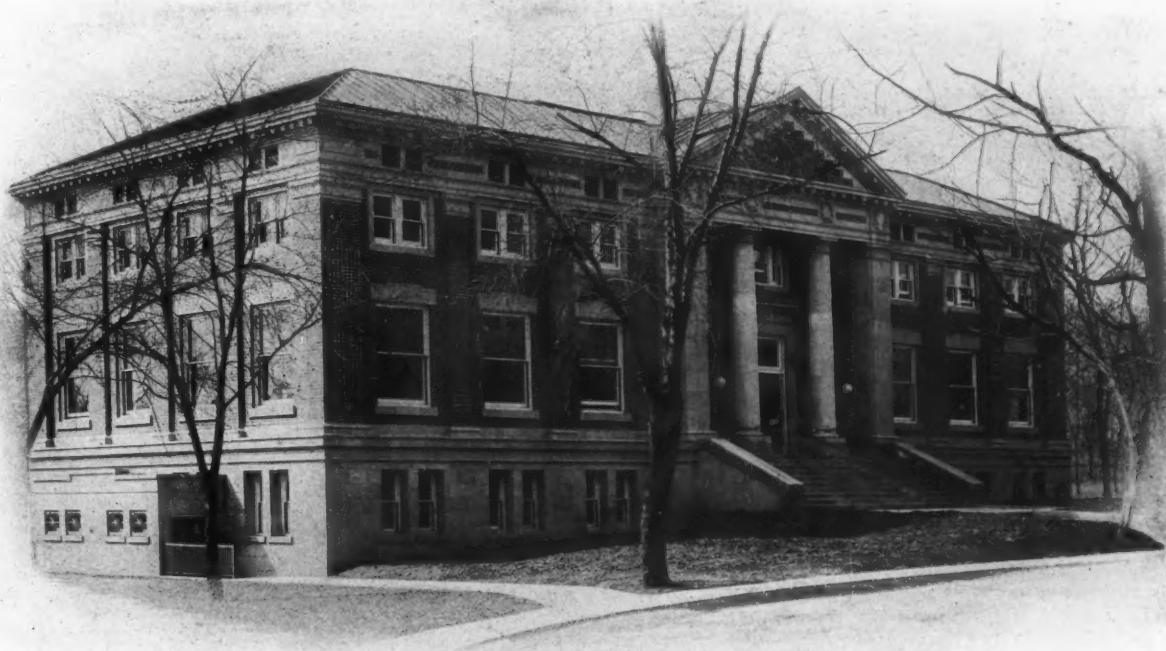
**What are "Best Materials":** Bids are than asked for and the lowest is accepted. Having to furnish no definite material, one roofer estimates honestly on a standard and well-known brand of roofing tin, regarding the quality of which there can be no question. Another puts his own definition on the word "best" and sends in a low estimate, saying to himself, "That is the 'best' I can furnish at my price."

**How the Honest Roofer Loses:** The first roofer also responds conscientiously to the architect's specifications, that the tin shall be applied in a certain way, using cleats and rosin for the soldering, that it shall be carefully painted with an approved brand of paint, and the entire job done in an

entirely workmanlike manner. The other man believes he can slight the work in these or other important particulars and thus manage to make something on his low bid.

**Can't Judge Tin in the Box:** Neither the owner nor the architect can tell the durability of roofing tin by looking at the sheets. Good tin and poor tin look alike in the box. It may have a cheap coating put on by a labor-saving machine, it may have been made by the use of acid flux and may carry the requisite forty pounds of coating, and yet in spite of many points of inferiority, it may pass muster to the eye. Moreover, the defects do not show at once, and the tin roof is not likely to go wrong until after the work is accepted and the bill paid. When in a few years the roof shows signs of deterioration, we get angry and say, "It seems impossible to get honest materials and honest workmanship nowadays." We forget that the lowest bidder did the work and that he was the very fellow who, by every sign which ought to appeal to common sense, was least deserving of our confidence.

**Be Reasonable:** We forget, moreover, that in condemning all tin because the brand we used went wrong, we are about as unreasonable as we would be if we declared that there were no good strawberries any more simply because those we bought of an irresponsible peddler proved rotten at the bottom of the box. Well, in spite of our dissatisfaction, we must have our house re-roofed, so what do we do? Send for the man who made the high bid before and talk it over with him? Some of us would; others of us would say, "Not by a jug full, he wants it all. I see advertisements where roofing can be bought ready to be put on and a guarantee goes with it that it will last five or six



Carnegie Library, Howard University, Washington, D. C.

Whitefield & King, Architects, New York City

Covered with "Target and Arrow" Roofing Tin

years or they will refund the money paid for it. They say it will last twice as long as tin roofing and is also much cheaper. I don't see how I can lose on that, I'll hire some fellow to put it on; anyone can lay this kind of roofing—and I will be away ahead of the game."

An Easy Roofing Game for Easy Marks: It looks easy, but the fact is we are easy! The roof goes on. Perhaps it is tight, perhaps it isn't. It stays on possibly a few years and then leaks begin to multiply.

Worthless Guarantees: But hold, we have a guarantee. We'll just collect on that and get back the cost of the material anyway. We try. Nothing doing. Our lawyer points out that the guarantee is very cleverly worded, and we could not recover under it. We also have just awakened

maker and the unscrupulous roofer—the bulls and bears of this little game. We are equally unfair toward materials. There is just as good roofing tin, and just as good solder, just as good old-fashioned rosin flux, and just as good paint as ever. In fact, the good materials are better to-day than the best ever were before, but we often insist on buying the worst and then blaming the disastrous results of the good materials which we might have used, but did not.

A Better Way: If the architect in the first place had named a standard brand of roofing tin to be laid in accordance with the standard working specifications of the National Association of Sheet Metal Contractors, and a standard brand of approved paint, all bidders, if estimates were asked, would have been on the same level, and the good



Metropolitan Museum of Art, New York City  
Covered with "Target and Arrow" Roofing Tin

to the fact that even if we could recover, the cost of the roofing was only a small part of the cost of the whole job. Punk! Now we know there is no good roofing material any more, and no honest manufacturers. Don't tell us! Haven't we had experience? Congress ought to investigate the roofing business! With a modification here and there the foregoing will fit exactly the case of a vast number of those property owners who have roof troubles. *What is the remedy?* In the first place, choose your roofer as you would your banker or your doctor. You may think roofing is not a skilled trade, but it is. The fact that almost anybody can solder tin, nail cleats and daub paint, does not affect the claim. There is much in knowing how to do these things right, in accordance with what experience has shown to be the best practice. Some roofs require a different treatment than others. A skilled roofer knows about these things, and they decide whether you are to have a satisfactory job or one which you will weep over. Roofers not only differ in knowledge and skill, but differ in honesty and conscientiousness just as your bankers and your merchants do. The so-called "banker" who offers you 10 per cent a month on your investment will not leave you a whole skin if he can help it; why do you expect anything but a "skinning" of a roofer who offers you so much more for your dollar than the other man, who has a fine reputation for good work and a consequent big patronage?

The Gambler Shouldn't Complain: The fact is, we "plunge" on our roofing, hoping that maybe we will win out on the gamble and then we squeal in a most unsportsmanlike manner when we are shorn by the fake roofing

roofer would not have been at such a great disadvantage. If, then, great care had been taken to invite only roofers of personal integrity, and with a reputation for excellent work, to bid, giving them liberty to do the work right, instead of insisting on their doing it as quickly and as cheaply as possible, the results would have been gratifying, both to peace of mind and pocketbook.

Have Confidence: also Prudence: It is also worth while always to see that the material specified is used. This is only common business prudence. You may thoroughly trust the bank teller, but you always count your money. It is no reflection on any one to look at the brand stamped on the sheets of tin and the label on the paint can. Excellent roofing is being done in every locality in this country, but it is not being done with cheap, perishable forms of roofing, nor with cheap, machine-made roofing tin—the inferior product of a large and varied industry. It is not being done by men who have never learned the roofer's trade, nor by men who, although having learned the trade, are of easy business morality, like the get-rich-quick bankers.

Good Work Attends Good Roofers: The good work is being done by the intelligent, conscientious roofer who generally costs more than the other, but is worth all he costs. He is in every community. It would pay the house owner far better in dollars and cents to hunt him up than to sit down and exclaim: "There is no good roofing tin and there are no good roofers any more," but sometimes it looks as if we would rather find fault than save money, as if we would rather be buncoed than use our common sense.

**The Roofing Tin That Gives Satisfaction:** The use of good, heavily coated, hand-made roofing tin is half the secret of a good roofing job. A good roofer is the other half. Finding a good roofer is a matter of inquiry. To get genuine hand-made roofing—the kind of tin that has proved so satisfactory in this country through more than one hundred years' use—it is really necessary to insist upon having that which is stamped on each sheet with the

TARGET AND ARROW trade-mark, as this is the only brand of roofing tin now obtainable which strictly maintains its old-time standard of value after nearly 100 years' use. To protect you against the possibility of substitution of inferior material or imitations—and there are hundreds of these—each sheet of tin is stamped with the TARGET AND ARROW brand and the name and address of the manufacturers.

## Current Notes and Comments.

The Otis Elevator Company exhibit of elevator machines and safety devices in the Palace of Machinery at the Panama-Pacific International Exposition is conceded to be one of the most attractive exhibits in the building.

Although it has been impossible, obviously, in the limited space available, to display all of the many types of Otis electric, hydraulic, belt and hand-power elevators, yet a splendid opportunity is given to become fully conversant with the newer developments in high-speed electric and push-button controlled machines.

The display of Otis 1:1 and 2:1 gearless traction elevator machines has been awarded the Grand Prix, and the Grand Prix has also been awarded on the Otis worm gear traction alternating current two-speed machine, which is arranged for speeds up to and including 350 feet per minute. This achievement, as can be readily appreciated, is a most notable advance in elevator design. The widening use of alternating current has prompted this important development, which unlocks many doors heretofore tightly closed against the specification of a comparatively high-speed alternating current elevator. A gold medal has been awarded on the new Otis electro-mechanical safety, the product of years of searching study and thought on the part of the company's officials and engineers. This new safety device has many distinct advantages over its predecessor for very high speed elevators, and has been granted the unqualified approval of the New York City Building Department, under whose supervision it was first tested and used.

A gold medal has been awarded on the Otis oil buffer, the invention and perfection of which has added so materially to the safety of elevator operation. One of these buffers is on exhibition, exposed, to illustrate the delicate and exact construction of its chambers.

A medal of honor has been awarded the Otis automatic push button control electric elevator, which travels twenty-four feet in an open hatchway to the balcony above, with its machine and controller located below to demonstrate the precise control qualities of this popular elevator.

The total awards granted the Otis Elevator Company are two grand prizes, one medal of honor and two gold medals.

One of the most attractive and interesting booklets that has ever come to the editor is entitled "School Sanitation," and is published with the compliments of the Pacific Porcelain Ware Company and the Pacific Sanitary Manufacturing Company, San Francisco.

This booklet contains a most instructive article on the subject of school sanitation by Harold Farnsworth Gray, Health Officer, Palo Alto, California. It is especially written to have interest from an architectural standpoint. Being devoted to school sanitation, the publishers thought it wise to reproduce photographs of prominent and recently constructed school buildings, which certainly add to the interest of this booklet.

The prime purpose in presenting this pamphlet is to call attention to the porcelain enamel cast-iron ware and vitreous chinaware fixtures, which this concern considers especially fitted for use in schools, and an effort has been made to describe the fixtures shown, in a manner that would be clear to those not familiar with trade expressions.

Various late products of this company are also illustrated and give a very clear idea of the use and purposes of the various fixtures. It is said that Pacific Ware costs no more than any reputable eastern line and is backed by the company's unlimited guarantee against defects in material and workmanship. At the present time over 300,000 porcelain ware fixtures are giving satisfaction on the Pacific Coast.

Announcement was made by this concern that copies of this booklet will be mailed to any address upon request to the San Francisco office at 69 New Montgomery Street.

In the advertisement of the Boston Varnish Company in this issue, it will be noticed that the well-known brand of Kyanize Varnish was used in the interior finish of the Edward Hotel, San Francisco. This varnish is particularly adaptable for hotels and public buildings. Kyanize varnish has been used in many of the larger apartment houses and hotels of the Pacific Coast. It is especially made with a view of withstanding the hard usage that the varnish of such buildings must stand. For school houses, hotels, and churches, it has been very widely used. Mr. A. L. Greene, 311 California Street, San Francisco, is the Western representative of this concern. Offices are located in all the Pacific Coast cities, where stocks are carried, convenient for immediate orders. Kyanize brand of enamel and varnish bears an enviable reputation.

As a result of the urgent request of officials of the Panama-Pacific International Exposition, an informal meeting of the National Brick Manufacturers' Association, will be held at San Francisco during the last week of August. This gathering will not constitute a convention, but will be just a social meeting of those that can make it convenient to visit the exposition at this time. The gathering of the clay working clans will add to the pleasure of the occasion. In honor of the event the exposition made the announcement that August 26th has been officially designated as "National Brick Manufacturers' Association Day," and at that time a special program will be given.

The Model Brick Home at the exposition, erected under the direction of the Panama-Pacific Clay Products Association, will serve as the center of headquarters for the visitors and here an attendant will be in charge and all privileges will be extended to visitors.

## Asbestos Shingles for Permanent Roofing.

BY CHAS. H. STRINGER.

Since the earliest time, roofing, from its most primitive form, as seen in the straw-thatched hut, has been a subject considered by everyone who contemplated a roof for a building. Slate came into use after a while, and later ready roofings and the cheaper slag and felt forms. Some of these materials are good and many indifferent. While considering the small cost of a roof in comparison to the large cost of erecting the building, and the interior furnishings, fixings, etc., it behooves anyone, who is anxious to protect and save the money spent in the walls, fixings, etc., to put on a roof that is permanent.

After all is said and done, the best roofing is by far the cheapest in the end, and the best construction of a roof is

The great invention covered by L. Hatschek's re-issued patent No. 12,594, under date of January 15, 1907, for a fireproof building material, composed entirely of asbestos fibre and hydraulic or Portland cement, marks an epoch in the building industry and a new birth in the matter of fire protection, so far as fireproof construction is concerned.

Being fireproof and not affected by continuous moisture or frost, or subject to deterioration by the elements in any way, it is obvious that asbestos shingles and asbestos building lumber may be employed freely and confidently in a vast variety of places where ordinary lumber has failed.

Primarily designed to replace the ordinary roof coverings, only, its merits have been found to be such that its employ-



E. W. Twaddle Residence, Devon, Pa.  
Asbestos "Century" Shingles applied French Method on the Roof

also the cheapest. For this reason a roof that is rough sheathed, properly felted and covered with asbestos shingles makes by far the best and permanently cheapest roof. The various roofs that have been in use for some time have demonstrated that, like the most of other materials, there is painting or maintenance to be taken into consideration in caring for the roof, and it remained for the inventor mentioned below to produce the greatest invention in roofing materials of the age.

In asbestos shingles one has a roof, when properly applied, that will outlast the lifetime of the building. The simple exposure of the elements causes the cement, that has been deposited upon the asbestos fibre in the process of manufacture, to crystallize, and it then becomes better and better; in fact, more serviceable as time rolls on. Cement has been known to crystallize as long as twenty-eight years from the time it was first mixed. This is only proof of the claims made for asbestos shingles—that they improve, toughen and harden with exposure to the elements and atmospheric conditions. Another good point which these shingles have, and it is not to be overlooked by any manner of means, is the fact that they do not have to be painted to preserve them, as the elements take better care of asbestos shingles than the best paint or dressing that has ever been manufactured.

ment by our best architects and engineers has extended to all classes of work wherein its many desirable qualities have supplanted other materials heretofore commonly in use.

It is perhaps superfluous to an educated person to say that asbestos shingles, slates or sheathing, made wholly of mineral fibre, asbestos and hydraulic cement, are both fireproof and indestructible. Asbestos, or mineral flax, as it is often called, from its peculiarity of crystallizing in fibres instead of in ordinary crystals, as is the usual case with mineral materials, and hydraulic cement have been known, from earliest times, as among the most refractory of substances. The old Greek and Roman remnants of antiquity, composed largely of hydraulic cement, remain mute witnesses of the everlasting quality of this material.

Asbestos fibre has remained exposed to the elements for unnumbered centuries, without deterioration. Its well-known fireproof quality renders it the most suitable fibre upon which to crystallize the cement deposited thereon in the course of manufacture. It is therefore evident, from the well-known qualities of these two materials, that nothing could have been selected that would have been more fireproof, indestructible and everlasting than asbestos fibre and hydraulic cement as raw materials from which to prepare a permanent building material, such as we have derived through asbestos shingles and asbestos building lumber. Nails may be driven through asbestos shingles and asbestos

building lumber, by a quick, sharp blow of the hammer, quite close to the edge without danger of fracture, thus differing materially from all other sheathing materials in the important attribute of toughness and homogeneity.

It is sufficiently elastic to allow of marked tension due to vibration, expansion and contraction of surrounding parts, wind pressure, etc., without cracking or breaking in any manner. The resistance of these shingles to blow, flexion, tensions, etc., is enormous and surprising. These shingles may be punched, filed or worked generally with the greatest ease, with ordinary tools such as are used for working natural slate or wooden shingles. They become very hard, particularly if exposed to the weather, or after the lapse of years. One great and desirable feature of them is that they can be successfully jointed, fitted, etc., by the work of ordinary mechanics, no unusual or special knowledge being required in handling them.

Owing to the enormous pressure under which the shingles are manufactured, they absorb, when fresh, only about four or five per cent of their weight of water, thus forming, as will be seen, a roofing tile of most excellent quality. Exposed to the action of the atmosphere for a year or two, the hydration and subsequent crystallization converts them into absolutely impermeable roof coverings, which, as such, defy all changes of climate and thus become greatly superior to other forms of sheathing.

On account of the lightness of weight of the asbestos shingles (under the French method of application the weight being only 275 pounds, and under the American method only 400 pounds per finished square), the framing may be of much lighter construction than that designed to carry slate roofs. Therefore a very considerable sum is saved in building construction. The shingles may be cut or sawed, shaped to fit around dormer windows, chimneys, etc., without fear of injury to those surrounding them. When with these good features is combined the absolute unalterability of the shingles, their economy of application and maintenance, their fireproof qualities, their toughness and elasticity, it is not to be wondered at that they make the best roof covering

ever produced, either of natural or manufactured materials.

While the French method of applying asbestos shingles or roofing slates has many advantages over any other usage, many architects and users of roofing materials prefer the American or usual slate method of application.

After very careful observation in this and several European countries, we have become so thoroughly convinced of the value of the Asbestos "Century" Shingles that we, without any hesitancy, recommend them to all who desire a handsome and serviceable roof covering at a moderate cost.

They can be used upon nearly every class of structure where there is sufficient pitch of roof for the ordinary use of wooden shingles or natural slates. Architects who are desirous of securing an uneven appearance in the color of the completed roof are specifying that the Asbestos "Century" Shingles be laid haphazard right and wrong side up, which especially in the solid red color makes a very attractive roof.

Other variations may be practiced according to the ideas of the architect or designer; for instance, one might make a new start every fifth or sixth course by raising the course by a light strip of wood being placed under the next course above, which of course means a new start just the same as at the eave line.

Various shapes of shingles may be used as band courses in conjunction with the regular pattern or style decided on in order to break the even appearance. Changes and variations might be made ad libitum, but we will not enumerate further as these things will suggest themselves to each individual taste.

No matter under what atmospheric conditions they may be applied, hot or cold, wet or dry, the asbestos shingles stand to-day unapproached, in the line of coverings, by any other material.

Asbestos "Century" Shingles—the roof that outlives the building without either paint or repairs—applied either French (diagonal) or American (usual slate) method, will protect your building in all kinds of weather, winter or summer, rain or shine.

They cannot rust or decay. Will not deteriorate or disintegrate. In short they are immeasurably superior.



Francis Line Residence, Cleveland, Ohio. J. Milton Dyer and F. G. Bates, Architects.  
Asbestos "Century" Shingles applied American Method on the Roof and Asbestos Building Lumber on the Sides.



W. E. Crawford Residence, Cincinnati, Ohio. Fasse and Reed Architects.  
Asbestos "Century" Shingles applied French Method on the Roof and Honeycomb Effect on the Sides.

# Ventilation.

BY CHARLES T. PHILLIPS, C. E.\*

The necessity for ventilation, that is, the renewing and purifying of air in a closed room or building, is due to the vitiation of the air by the products of respiration from persons in the room or building, to the products of combustion from artificial lighting, with the exception of the various types of incandescent electric lamps, to the heat generated by persons and lights and to the presence of gases from chemical processes.

In small spaces or in places where only a few people congregate and there is an absence of injurious gases, ventilation can be produced by methods employing natural draft. The force of the draft depends upon the difference between the temperature inside and outside of the building to be ventilated and the retarding effect or friction in the vents or flues. This method is more or less uncertain, as the force produced by the draft is very small and may be entirely overcome by external conditions. For this reason, a system of ventilation where the air is accelerated by some other means is preferable. This may be done in various ways, such as a hot air furnace, steam, indirect radiation or with a fan or system of fans. The latter method is to be preferred, as it may not be desirable to use steam or furnace during warm weather even though the heat is not discharged into the building.

The amount of ventilation needed is usually determined by the temperature of the air and the amount of carbonic acid gas or other impurities which the air may contain. When air pollution is due to the products of combustion given off by the excretory organs of human beings, a disagreeable odor is noticeable and the excretions may be of such a nature as to be poisonous. The amount of heat generated by a human being has to be considered and this will vary with age, activity and temperature of the surrounding air. The heat from an adult may equal about two square feet of steam radiation and for this reason the ventilation of auditoriums, schools, theatres, etc., may have two functions to perform, purifying the air and lowering the temperature.

Gases given off by various sources of artificial lighting should not be allowed to circulate in a room. They contain not only carbonic acid gas and watery vapor, but frequently sulphuric acid. Some of the new types of arc lamps give off extremely poisonous vapors. The different types of incandescent lamps are not objectionable except where there is a large number and the heat generated becomes effective.

Industrial plants where chemical processes are carried on should be carefully and thoroughly ventilated and when it is possible to discharge the gases to the outer air they should not be allowed to accumulate so that the odor is perceptible.

\*Consulting Engineer, Pacific Building, San Francisco.

If it is impossible to prevent a certain accumulation of the gases, sufficient fresh air should be provided to dilute the chemical products so there will be no injurious effect upon the workman.

Money spent on good ventilation is always a good investment. Workers need plenty of pure, fresh air to be efficient. Good ventilation is an economic and hygienic requisite for all work and recreation which requires people to be temporarily or permanently indoors. Since, in a large proportion of buildings, the cubic space for air supply is inadequate compared with the floor area allowed for each person, it is indispensable, wherever people congregate, to change and freshen the indoor air supply. The health, cheerfulness and efficiency of workers within doors and the physical comfort of people in theatres, auditoriums, etc., depend in a marked degree on suitable provisions for renewing the supply of fresh air and removing that which is stale or vitiated.

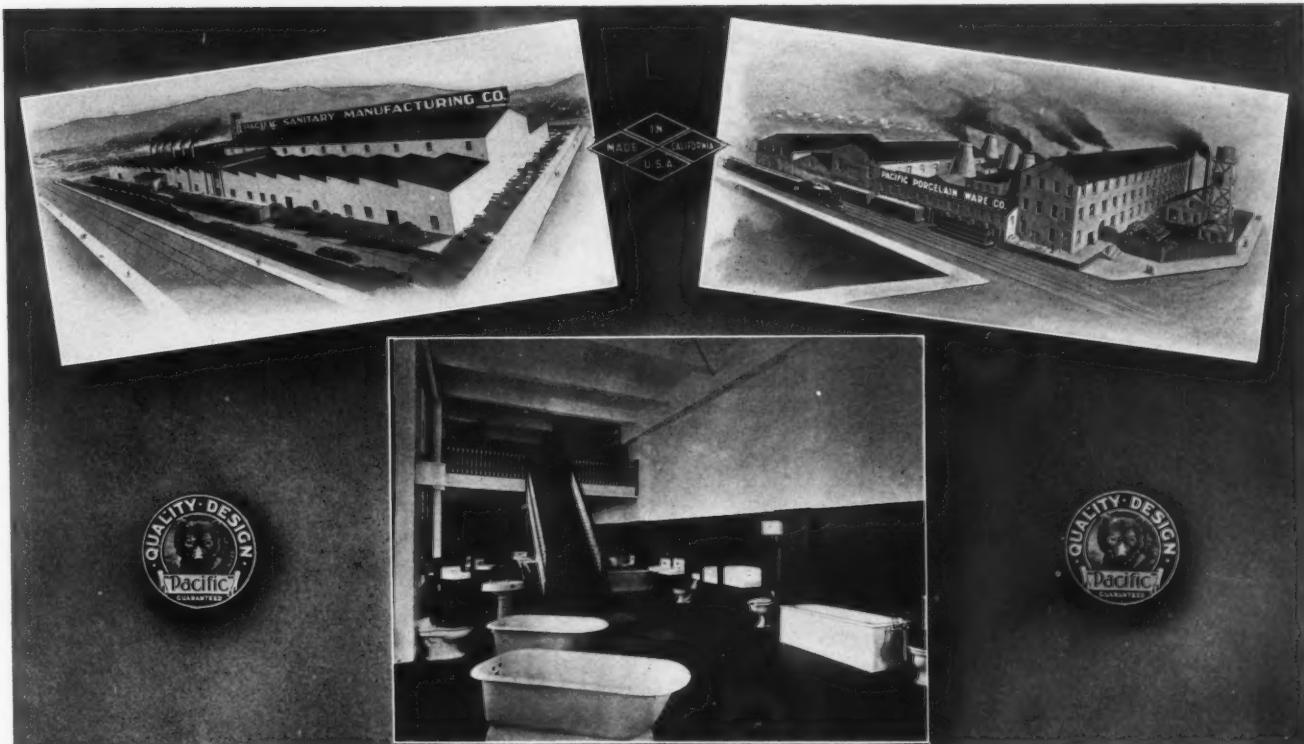
Proper ventilation is not only an effective preventative of mental sluggishness and headaches, but it protects the throat and lungs from dust and impurities. Another great danger of vitiated air is due to excessive heat and moisture and to odors which arise from respiration and surface excreta. These conditions are often due to organic impurities which may or may not be poisonous but nevertheless constitute an important factor in the undesirability of stale air.

An important advance in ventilation, where high efficiency in the heating of the building is also desired, is the recirculation of a part or all of the air and the purifying of same with ozone with the assistance of air washers.

Ozone machines, consuming a few watt-hours of electric energy, are now a commercial success, and the use of these machines is being recognized as a valuable adjunct to modern ventilating methods.

The designing of ventilating systems has not been reduced to an exact science. Judgment and experience in designing heating and ventilating plans are important factors. One reason for this is the lack of experimental data governing some of the most important factors entering into these calculations. This lack must be filled from the designer's experience.

Architects should prepare careful and detail specifications if a successful system of ventilation is desired, and insist on some reliable test or have the work checked over carefully before acceptance. The writer has been called in a number of times to remedy faulty systems where the contractor had made profuse verbal and written guarantees of the results that his installation would give, and when the system proved a failure, neither the owner nor the architect could obtain redress.



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NEW KANSAS CITY ORPHEUM THEATER.  
Continued from page 59

alleys, into which thirty odd exits dislodge the audience, thus allowing the entire house to be evacuated in two and a half minutes.

Architect Lansburgh designed the Orpheum Theater in San Francisco and in Los Angeles, two widely exploited structures, regarding which much has been written in appraisement of their beauty and comfort. Critics have classed the latter two theater buildings as the acme of such construction in this country to-day.

This latest theater of Kansas City has been pronounced an even greater triumph for Mr. Lansburgh than the San Francisco or Los Angeles buildings. Features in theater construction not before used have been introduced in this magnificent structure, and the building has been so designed with an eye for the comfort of theatergoers, that the press has been unanimous in announcing the Kansas City Orpheum Theater one of the finest buildings of its kind in the United States.

It has been said that art finds the facile clay, as the Creator found it, a most fitting medium for the embodiment of spirit. Architect Lansburgh has woven polychrome terra cotta into the architecture of his building in a masterful manner, resulting in a very charming and enlivening element of color. He has used the matt glaze to soften and harmonize all the colors into effects, achieving a superb distinction by his effort.

The outstanding characteristics of this theater are the architect's fondness for circular, semi-circular and oval forms, in plans, as well as for combining arched form with travertine construction; his fenestration, which aspects of design make this building most valuable to a student of architecture.

The Kansas City Orpheum is representative in the highest word in this era and will serve as an influential example of the architecture of our time.

Architect Lansburgh has long been recognized as a mentor in theater architecture, and his latest work is an additional reason for singling him out as representative of his day and monumental work.

## Pacific Coast Chapters, A. I. A.

THE ARCHITECT is the official organ of the San Francisco Chapter of the American Institute of Architects.

*San Francisco Chapter, 1881*—President, William B. Faville, Balboa Building, San Francisco, Cal. Secretary, Sylvain Schnaittacher, 233 Post Street, San Francisco, Cal.  
Chairman of Committee on Public Information, William Mooser, Nevada Bank Building.  
Chairman of Committee on Competition, William B. Faville, Balboa Building, San Francisco.  
Date of Meetings, third Thursday of every month; annual, October.

*Southern California Chapter, 1894*—President, A. C. Martin, 430 Higgins Building, Los Angeles, Cal. Secretary, Fernand Parmentier, Byrne Building, Los Angeles, Cal.  
Chairman of Committee on Information, W. C. Pennell, Wright & Callender Building, Los Angeles.  
Date of meetings, second Tuesday (except July and August), (Los Angeles).

*Oregon Chapter, 1911*—President, A. E. Doyle, Worcester Building, Portland, Ore. Secretary, William G. Holford, Chamber of Commerce Building, Portland, Ore.  
Chairman of Committee on Public Information, William G. Holford.  
Date of Meetings, third Thursday of every month (Portland); annual, October.

*Washington State Chapter, 1894*—President, James H. Schack, Lippy Building, Seattle, Wash. Secretary, Arthur L. Loveless, 513 Coleman Building, Seattle, Wash.  
Chairman of Committee on Public Information, J. S. Cote, 520 Haight Building, Seattle.  
Date of meetings, first Wednesday (except July, August and September), (at Seattle except one in spring at Tacoma); annual, November.

*Colorado Chapter, 1892*—President, W. E. Fisher, Railway Exchange Bldg., Denver, Col. Secretary, Aaron M. Gove, 519 Boston Bldg., Denver, Col.  
Chairman of Committee on Public Information, Arthur A. Fisher, 459 Railway Exchange Building, Denver, Colo.  
Date of meetings, first Monday of every month (Denver, Colo.); annual, September.

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## SAN FRANCISCO CHAPTER, A. I. A.

There was no meeting of the San Francisco Chapter during the month of July.



## OREGON STATE CHAPTER, A. I. A.

Minutes of the regular meeting of the Oregon Chapter, A. I. A., held at the Commercial Club.

Meeting was called to order by Vice-President Johnson, with the following members present: Lazarus, Naramore, Fouilhoux, Hogue, Smith, Lawrence, Whitehouse, Johnson and Holford.

Moved by Whitehouse seconded by Naramore and carried that the minutes of the meeting on June 17, 1915, be approved as printed and distributed.

Committee Reports: Building Laws—Mr. Fouilhoux, Chairman, reported that the ordinance covering change in building code rec-



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ommended by the Chapter had been rejected by the Council. He also stated that an ordinance providing for installation of sprinklers in basements of all buildings two stories and over within the fire limits, used for manufacture, storage or sale of inflammable materials, except dwellings and fireproof buildings, had been submitted to the code revision committee. Moved by Mr. Lawrence, seconded by Mr. Whitehouse and carried that the Building Laws Committee investigate the merits of the proposed ordinance and report back to the Chapter.

Communications: Secretary read letter from Mr. Whitehouse regarding the Chapter prize to the atelier, stating that he was in receipt of a letter from Chester Treichel, also a petition from the competitors, asking for another competition. Mr. Treichel felt that he had hardly earned the prize awarded him, as the other competitors had been placed "hors concours."

Moved by Lawrence, seconded by Naramore and carried that the Chapter reconsider its former action in making the award, and that the matter be referred to the Educational Committee, with power to act.

Letter from the Institute asking for a local representative to co-operate with the National Committee on the Institute Excursion to the Pacific Coast was read. Secretary announced that the President had appointed Mr. Naramore in this capacity.

Letter from Mr. Whitnet was read and ordered filed.

Letter from August G. Headmen, enclosing report of the Architectural League of the Pacific Coast Convention, and asking for a vote on disbandment of League, was read.

After discussion, Mr. Lawrence moved, Mr. Whitehouse seconded and carried that the Secretary be instructed to cast the Chapter's vote against disbandment of the League.

Moved by Naramore and seconded by Hogue that the meeting adjourn.

W.M. G. HOLFORD, Secretary.

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**SOUTHERN CALIFORNIA CHAPTER, A. I. A.**

There was no meeting during the month of July.

◆ ◆ ◆  
**WASHINGTON STATE CHAPTER, A. I. A.**

There was no meeting during the month of July.



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